# Océ User Manual

## Océ PRISMAproduction Server

Administration Settings and Tasks

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# Introduction to the Océ PRISMAproduction Server "Administration Settings and Tasks" Manual

This manual mainly addresses users who install, configure and administrate Océ PRISMAproduction Server Server. It also covers the configuration of the POD-, APA-, LCDS-, OLDS- and PCL-Module. In detail the following subjects are described in this manual:

- Installation of the Operation System and of Océ PRISMAproduction Server
- Overview of the different user roles and permissions which are predefined in Océ PRISMAproduction Server
- Setup and configuration of the different POD-Module components (Unity, DPconnect, Jobrequirement tool, PCL, TIFF, PPML converters)
- Configuration of the LCDS-Module
- Configuration of the OLDS-Module
- Configuration of the PCL-Module
- Description of all configuration interfaces in Océ PRISMAproduction Server
- Description of the parameters of the Océ Custom Ticket (OCT)
- Description of the different backup solutions for Océ PRISMAproduction Server
- Integration of the Océ Document Designer in Océ PRISMAproduction Server

# Contents

**Chapter 1**
**Installation** ..... **11**
Installation of SUSE Linux: Overview ..... 12
Installation of SUSE Linux: Preliminary Notes ..... 13
Create Server Configuration Media ..... 15
Installation of SUSE Linux Enterprise Server 10 SP2 ..... 18
Update of SUSE Linux Enterprise Server 10 ..... 23
Configuration of SuSE Linux Enterprise Server 10 ..... 32
Security and Services ..... 39
Océ PRISMAproduction Server Installation/Deinstallation/Update ..... 45
Océ PRISMAproduction Server Licenses ..... 49
Change IP Address, Host and Domain Name ..... 51
Modify Adaptec Bios Settings for older Tape Drives ..... 54

**Chapter 2**
**Remote Access to the Océ PRISMAproduction Server 'Explorer'** ..... **55**
Access with the 'Explorer' Launcher ..... 56

**Chapter 3**
**User IDs and Access Rights** ..... **61**
User IDs and Access Rights ..... 62

**Chapter 4**
**POD-Module Operation** ..... **67**
'Print File Manager' ..... 68
'Print File Manager' (PFM) ..... 68
'Unity' ..... 75
'Unity': Overview ..... 75
'Unity': User Resources and Fonts ..... 77
'Unity': Customizing for Specific Applications ..... 82
'Unity': Color Separation ..... 84
Workflow Extended AIMS Concept ..... 91
'Unity': Enhanced Functionality ..... 93
'Unity': Conversion ..... 94
'Unity': Troubleshooting ..... 95
'Unity': Unity Plus (Graphic Arts_Plus) ..... 96
'Unity': 'GetTiff-Service' Integration ..... 100
Jobrequirement ..... 101
Jobrequirement Functional Module ..... 101
PCL Converter ..... 108
PCL Converter: Concept ..... 108

PCL Converter: Fonts and Bin Control....111
PCL Converter: Saving Resources on Hard Disk....113
PCL Converter: Operation....119
PCL Converter: Conversion under Océ PRISMAproduction Server.124
PCL Converter: Troubleshooting....126
TIFF Converter....130
TIFF Converter: Concept....130
TIFF Converter: Operation....132
TIFF Converter: Troubleshooting....140
PPML Converter....143
PPML Converter: Overview....143
PPML Converter - Workflow....145
'DPconnect'....147
'DPconnect' Functionality....147
'DPconnect' Configuration and Job Submission....153
'DPconnect' User Interface - Overview....159
'DPconnect''Job Processing' Tab....160
'DPconnect' Data Processing Mode Tab....164
'DPconnect''Input Job Ticket Translation' Tab....172
'DPconnect''Barcode' Tab....174
'DPconnect' Hints for using Ticket Templates....177
'DPconnect' Meaning of Job Ticket Template Entries....178
'DPconnect' Configuration Example....189
'DPconnect' Maintenance Programs....193
'DPconnect' Appendix....196

**Chapter 5**
**LCDS-Module Operation....213**
LCDS-Module: 'New catalog'....214
LCDS-Module: Organization of Resources....215
LCDS-Module: 'LCDS Resources'....217
LCDS-Module: Stockset Configuration Tool....223

**Chapter 6**
**PCL-Module Operation....231**
PCL-Module: General Features....232
PCL-Module: Native Workflow....234
PCL Native Workflow in the PJM....237
PCL-Module: Syntax of the Native PCL Filter....242
PCL-Module: Print Parameters....245

**Chapter 7**
**Configuration....249**
Overview and Usage of the Configuration Interfaces....250
Configuration Overview....250
General Usage of the Configuration Applications....256

'User Management'....258
'User Management': Overview....258
'User Management': LDAP Support....262
'User Management': 'User'....264
'User Management': 'User Info'....269
'User Management': 'User Info' for 'operator' and 'applic'....270
'User Management': 'User Permissions'....271
'Cluster'....276
'Cluster' Configuration....276
'Logging'....278
'Logging'....278
'Events'....280
'Events' Configuration....280
'System'....281
'System Configuration': Overview....281
'System Configuration': ODS Parameter....282
'System Configuration': System and Job Parameter....284
'System Configuration': eMail Notification....286
'System Configuration': Mirroring....288
'System Configuration': LDAP Parameter....290
'System Configuration': 'Country Preferences'....293
'System Configuration': 'Password'....295
'Devices'....298
'Devices' Configuration....298
'Devices' Configuration (APA / LCDS)....300
'Master/Slave'....301
'Master/Slave' Configuration....301
Message System....304
Message System: Overview....304
Message System: 'General' Settings....305
Message System: 'Automatic Saving'....307
Message System: 'Automatic Answers'....309
Message System: 'Triggers' (Active Notification Interface)....311
Message System: 'Message Suppression'....312
'Licenses'....313
'Licenses'....313
'Accounting'....316
'Accounting' Administration: Overview....316
'Accounting' Administration: General Settings....317
'Accounting' Administration: 'Database Permissions'....320
'Accounting' Administration: 'Legacy-Files'....321
'Consumables'....322
'Consumables' Configuration....322
'Backup/Restore'....327

'Backup/Restore': Basic Concept....327
'Backup/Restore': Window....330
'Backup/Restore': Convert old Backups....335
'Library paths'....337
'Library path configuration'....337
'Printers'....339
Printer Configuration: Overview....339
Printer Configuration: Add a new Printer....342
Printer Configuration: 'Job Notification'....346
Printer Configuration: 'General'....349
Printer Configuration: 'Print Parameter'....352
Printer Configuration: Printer Drivers/Backends....355
'IPDS Driver' (AFP2IPDS Backend)....356
'Linedata Printer Driver' (LCDS)....357
PostScript Backends (Xerox 6180, VP2110, VP61xx, OCE31x5, Canon 150, CPS700-900)....360
Printer Configuration: Custom specific Infopages and Resources for Configured Printers....362
Printer Configuration: 'Job Queues'....364
Printer Configuration: 'Cluster'....365
Printer Configuration: Toner Stations....366
Printer Configuration: 'Input Devices'....367
Printer Configuration: 'Output Devices'....368
Printer Configuration: 'Printer Notification'....369
Printer Configuration: 'Gray Curves'....370
'Job Queues'....375
'Job Queues Configuration'....375
'FCB'....378
'FCB' Configuration....378
'LCDS Jobs'....379
Overview of LCDS-Module Processes....379
LCDS Parameter Configuration: Job Control Files (JCF)....382
LCDS Parameter Configuration: 'LCDS Jobs' Window....385
LCDS Parameter Configuration: Description of the JCF Parameters....387
LCDS Parameter Configuration: Online Configuration....403
LCDS Parameter Configuration: Special Functions and User Scripts....405
'Paper'....413
'Paper' Configuration Tool....413
'Ticket Rules'....416
'TicketRules': Introduction....416
'TicketRules': Main Window....418
'TicketRules': Definition of Rules....423

'TicketRules': Definition of Conditions, Settings, Messages and Return/Exit....425
'TicketRules': Parameters....429
'TicketRules': Variables....430
'TicketRules': Define Foreach Loop....435
'TicketRules': Value Tables....437
'TicketRules': Save and Log....439
'TicketRules': Activate for LP, Download and HotDir....440
'Archives'....441
'Archives': Overview....441
'Archives': 'PFL Archives'....443
'Archives': 'Database Links' / 'Document Manager Cache'....445
'Archives': 'Administration'....451
'Archives': Search Function....453
'Archives': Appendix....455
'Input Modules'....460
'Input Modules': Overview....460
'Download'....474
'Download': Behavior in Error Situations....484
'HotDir'....488
'HotDir': Behavior in Error Situations....500
HotDirWinClient....504
'LP'....508
'LP': Behavior in Error Situations....525
LP Windows Client....529
LP Windows Tools....531

**Chapter 8**
**PJM Command Line....533**
PJM Command Line Mode Overview....534
PJM Command Line Parameters....536

**Chapter 9**
**Océ Custom Ticket....547**
Oce Custom Ticket....548

**Chapter 10**
**Workflows....567**
Workflow 'Tab Printing'....568
Workflow UP$^3$I Devices....571
Workflow 'Color Selection'....578
Workflow for scaling PDF files....581
Workflow Media Assignment to Printers....583
Workflow LCDS....586

**Chapter 11**

**Backup Solutions**.....**589**
Microlite BackupEDGE V2.1.....590
BackupEDGE: Installation and Configuration.....590
Connectivity to Océ PRISMAproduction Server.....592
Océ PRISMAproduction Server Backup (Additional Software).....596
Océ PRISMAproduction Server Backup: Tasks and Components.596
Océ PRISMAproduction Server Backup: Installation and Workflows.....599
Océ PRISMAproduction Server Backup: Command Line Client....603
Océ PRISMAproduction Server Backup: Glossary.....623
Mirror Print Jobs.....625
Mirror Print Jobs: Introduction.....625
Mirror Print Jobs: Prerequisites and Functionality.....627
Mirror Print Jobs: Workflow.....629

**Chapter 12**
**Océ Document Designer Integration in Océ PRISMAproduction Server**...**633**
Océ Document Designer for Océ PRISMAproduction Server.....634

# Chapter 1
# Installation

# Installation of SUSE Linux: Overview

## Introduction

The following chapters describe the installation of the operation system SUSE Linux Enterprise Server 10 SP2, which is the basis for Océ PRISMAproduction Server Server V4.0.

## Installation Chapters


- *'Installation of SUSE Linux: Preliminary Notes'* on page 13
- *'Create Server Configuration Media'* on page 15
- *'Installation of SUSE Linux Enterprise Server 10 SP2'* on page 18
- *'Update of SUSE Linux Enterprise Server 10'* on page 23
- *'Configuration of SuSE Linux Enterprise Server 10'* on page 32
- *'Security and Services'* on page 39

# Installation of SUSE Linux: Preliminary Notes

## Introduction

This chapter describes the prerequisites for the installation of the Linux operating system.

***Attention:***
BEFORE!!! installation of Océ PRISMAproduction Server V 4.0 or higher it is definitely required to reinstall the print server operating System with SuSE Linux Enterprise Server 10 SP2 "Unattended Installation". Otherwise the Océ PRISMAproduction Server software cannot be installed.

## Installation Package for Linux

The installation package for LINUX contains the **official DVD from Novell SUSE** and a **Server-Configuration-CD**, which contains the configuration floppies or files for all recommended Fujitsu Siemens Servers (see *'Create Server Configuration Media'* on page 15).
Alternatively to the installation DVD there are also 4 installation CDs attached.

*Note:*
The installation DVD and the installation CDs can only be used alternatively and not in parallel for the same installation!

## Hardware Requirements

- A minimum of 1 GB MB RAM is required for installing and running Océ PRISMAproduction Server in an productive environment. If the value is below this limit, an error message is displayed.
- The use of hard disks of at least 36 GB is required.

See the "Release Notes" for detauled requirements.

## Enhanced Documentation

For details about making boot -, modules - and configuration floppies for the LINUX system see file **OCE-installation-readme.txt** (English language) or **OCE-installation-liesmich.txt** (German language) on the Server-Configuration-Floppy CD.
There are also Quick Guides (README for English language, LIESMICH for German language) located on SUSE Linux Enterprise Server 10.

## Installation on non Océ certified Servers

On the Server-Configuration-Floppy CD you find images of Server-Configuration floppies of the type "Generic". These images can be selected by the type of hard disk controller, which is built into the system (please see installation readme files on the CD for further details). For the installation of Linux itself please refer to the description below.

## Cold Standby Rack (High Availability)

Installing or upgrading a Cold Standby Rack (2 identical servers with Common Hard Disk Extension) requires additional configuration and hardware setup in order to realize a working Master/Backup configuration.
A separate "Cold Standby Rack" CD with additional documentation for network setup and UPS (Uninterrupted Power Supply) support is available at the Océ Software Support department.

*Note:*
Please contact the Océ Software Support (Poing) before installation!

## Points to consider BEFORE Installation

- The unattended installation assumes that all servers are preconfigured according to the **Océ guidelines for customer use**.
- All servers with Mylex or LsiLogic Raid Controller MUST have at least two logical disk drives configured. Otherwise the installation fails for a missing disk drive.
- The size of the root file system (/) is 8GB, so the use of hard disks of at least 36 GB is required. This ensures to have enough space left (min. 8 GB) for installing and running Océ PRISMAproduction Server on the (/u) file system.
- Ensure to have Legacy USB Support disabled in the BIOS settings of the server. This will prevent the system from booting the License Dongle – it will fail, and the server stops booting at all.
- It is NOT allowed to have any USB storage devices connected to the server at installation time except the USB stick used for unattended installation.

# Create Server Configuration Media

## Introduction

The Océ specific configuration will be made by a configuration file contained on a 3,5 inch floppy disk (both internal or USB floppies) or any USB stick.
The Server-Configuration-Floppy can be created on any PC running Linux or Windows.

***Attention:***
Installing the server using this configuration floppy will **ERASE ALL DATA ON ALL HARD DISKS**!

## Available Server Configuration Files

The names of the directories on the CD are created by using a prefix and a suffix.
The prefix is the exact type of the server and the second names the configuration of the hard disks.
The Server Config Floppy Images are available for the following server hard disk configurations:
The suffix describes the used hard disk controller:

- suffix: -1xscsi
  One single SCSI hard disk is required (min 36GB).
- suffix: -2xscsi
  First hard disk for swap and root partition (min 18GB). Second hard disk for u-file system (min 18GB).
- suffix: -mylexraid (Mylex Raidcontroller)
  First logical disk for swap and root partition. Second logical disk for u-file system.
- suffix: -1xlsiraidraid (LsiLogic Raidcontroller)
  First and only logical disk for all, swap, root and u partition. Root partition is 50GB in size!!!!
- suffix: -2xlsiraidraid (LsiLogic Raidcontroller)
  First logical disk for swap and root partition. Second logical disk for u-filesystem.
- suffix: -ide
  Single IDE hard disk configured as Primary Master ist required (min 36GB).
- suffix: -hpraid (HP Smart Array Controller)
  First logical disk for swap and root partition Second logical disk for u-filesystem.

The generic types of the Floppy disk images are for installation of servers running Océ PRISMAproduction Server 4.x, which are not officially supported by Océ. The suffix describes the used hard disk controller in the same way as for the FSC servers. When using

a floppy created for the wrong hard disk controller, the installation will fail with a message of unsufficient hard disk space!

## Creating Floppy Disks from the Server-Configuration CD

First you have to detect the type of server to be installed. The hardware installed must be certified by Océ.
The disk images are available for multi-language installation and are located in subdirectories “de” for the German, “en” for the English, “nl” for the Dutch, “it” for the Italian, “fr” for the French, “es” for the Spanish version. These directories contain subdirectories for the different server types, which themselves contain the disk images and programs to create floppy disks.
See also the file ’SLES-Installation-xxx.txt’ (’xxx’ represents the language, either English or German) on the Server Configuration CD for a short description of the handling and installation of floppy disks.

*Note:*
The installation language of the operating system is independent of the Océ PRISMAproduction Server language settings.

| Step | Actions to create floppy disks under Linux |
|---|---|
| 1 | Login as user ’root’. |
| 2 | Mount the Server-Configuration-CD-ROM. |
| 3 | Change to the directory '/<CD path:>/<language>/<server model>'. |
| 4 | Insert an empty disk into the 3,5" floppy drive. |
| 5 | Execute the script "create-linux.sh". |

| Step | Actions to create floppy disks under Windows |
|---|---|
| 1 | Insert the Server-Configuration-CD-ROM into the CD-ROM drive. |
| 2 | From the Windows Explorer select the appropriate folder in '\<CD path:>\<language>\<server model>'. |
| 3 | Execute "create-windows.bat". |
| 4 | Verify the floppy, it should contain the following files:<br>(Mount the floppy using msdos filesystem and list the content. The number of files can be different in different versions!!)<br>■ version<br>■ autoinst.xml |

## Creating a USB Stick Installation Media from the Server-Configuration CD

*Note:*
The USB stick must contain a Windows or Linux compatible filesystem and can contain files. Only files named autoinst.xml or version must not be stored, as they will be overwritten!

The following steps will be required:

| Step | Action |
|---|---|
| 1 | Detect the type of server you want to install. |
| 2 | Insert the CD in your drive and open the CD-Root directory. |
| 3 | Change directory to the desired installation language (for example: DE=German, EN=English). |
| 4 | Change the directory to the one representing your server. |
| 5 | Change the directory to USB. |
| 6 | Copy the files from the directory to the ROOT directory of the USB stick. |
| 7 | Verify the content, it should contain the following files:<br>(Mount the stick and list the content. The number of files can be different in different versions!)<br>■ version<br>■ autoinst.xml |

# Installation of SUSE Linux Enterprise Server 10 SP2

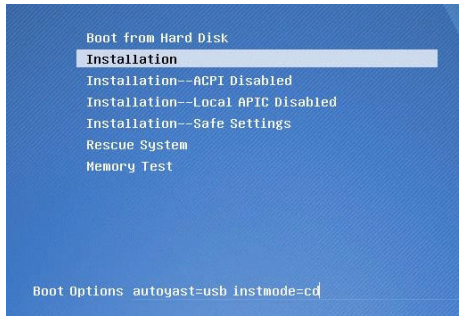
## Introduction

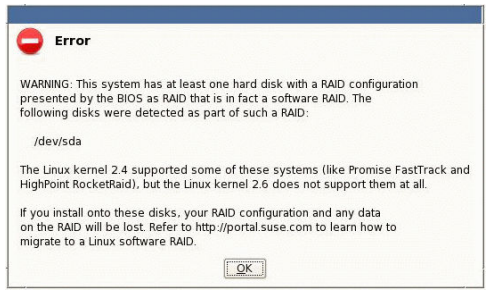
For preparing the installation and for the installation procedure the original DVD "SUSE Linux Enterprise Server 10 SP2" and the configuration floppy (or the USB stick) for this particiular server model will be required.

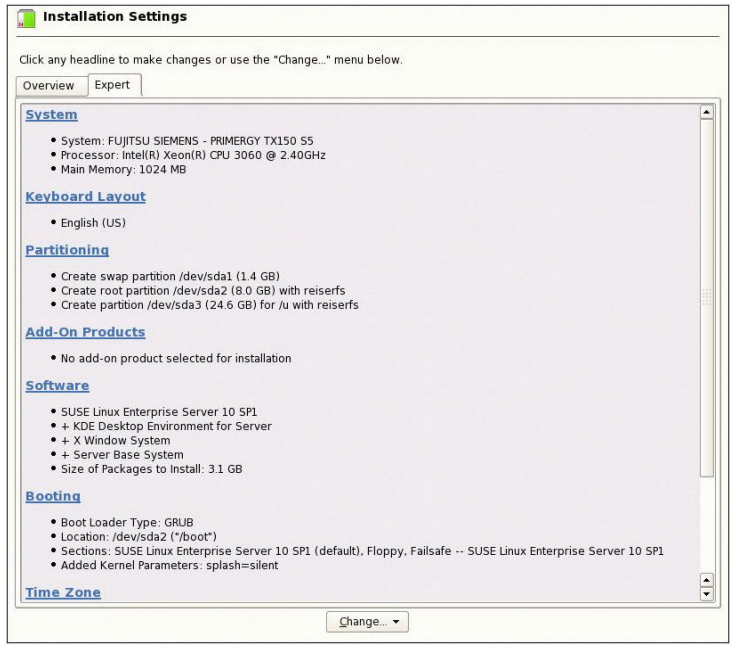
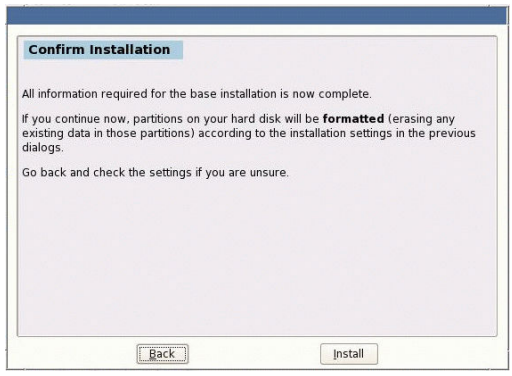
*Note:*
All preparation of hard disks regarding the partitions, as needed in SUSE Linux Enterprise Server 10 SP1, are NOT needed anymore in SUSE Linux Enterprise Server 10 SP2.

***Caution:***
Installation of LINUX will definitely ERASE ALL DATA on the server!

## Installation Steps

| Step | Action |
|---|---|
| 1 | Insert SUSE SLES 10 SP2 DVD and boot the server from DVD. |
| 2 | Select 'Installation' when the boot manager is displayed and enter one of the additional boot options:<br>Installation with internal 3,5 inch floppy disk:<br>**autoyast=floppy instmode=cd**<br>Installation with USB floppy drive or USB stick:<br>**autoyast=usb instmode=cd**<br>  |

| Step | Action |
|---|---|
| 3 | Depending on the installation method insert either the USB stick or the installation floppy.<br>Press <Return> to start.<br>When using certain hard disk types the system may detect by mistake a raid system.<br>If this error message (see below) appears, you may ignore it.<br>  |

| Step | Action |
|---|---|
| 4 | The installation now stops at a breakpoint which allows to review all settings.<br>  <br><br>*Note:*<br>It is forbidden to change any of the settings shown in this window, because of an error in SUSE Linux Enterprise Server 10 these settings WILL NOT BE ACCEPTED and WILL CAUSE THE INSTALLATION TO CONTAIN ERRORS! |
| 5 | To start the installation press "Accept" and button "Install".<br>  <br><br>Then the installation starts and prepares all hard drives and installs necessary software packages. |

| Step | Action |
|---|---|
| 6 | After the installation of the software is finished the system automatically reboots to continue installation from the hard disk.<br>AT THIS TIME PLEASE REMOVE ANY DVD AND THE FLOPPY/USB STICK FROM THE DRIVES.<br>After an automatic reboot, the installation and configuration will be finished automatically. The installation is completed when the graphical login screen is displayed. |
| 7 | If the unattended installation was done with a USB stick, the partition information of this particular USB stick was inserted into the '/etc/fstab' file during installation and will remain there pointing to an accessible disk. In order to recreate full auto mount functionality for USB devices it is required to remove the corresponding line of this USB stick from file '/etc/fstab' as follows:<br>■ Login as user “root”<br>■ Open file '/etc/fstab' with you favorite editor<br>■ Search for a line beginning with '/dev/disk/by-id/usb....' and remove this line<br>■ Save file '/etc/fstab' |

*Note:*
Using a floppy which is not dedicated for the used server model will end up in an unusable system, because the low-level-drivers differ from server type to server type and will therefore not be able to access the hard disks!

*Note:*
Due to a problem within the decoding of the DCC Signal of the connected monitor, in some cases the resolution of the X-Window system may be wrong and could therefore result in a wrong resolution (CRT screens) or even in a "black screen" (TFT screens). Steps to solve this and set up the proper configuration after installation:

1. Press "CTRL - ALT - F2" to change to terminal mode
2. Login as user root
3. Execute "init 3" to stop the X-Window System
4. Execute "sax2" to start X-Window System configuration
5. Accept the automatic default or change configuration as needed
6. Finish setup and save the configuration
7. Execute "init 5" to start X-Window System again

## Default Network Settings

The unattended installation of LINUX configures the server with the following default values, which have to be changed BEFORE connecting the server to the network:

- Hostname: **lx001234.ops.de**
- First network card: **192.168.10.50 / 255.255.255.0**

To change these default settings, please refer to *'Configuration of SuSE Linux Enterprise Server 10'* on page 32 for details of how to configure the system properly.

# Update of SUSE Linux Enterprise Server 10

## Introduction

The following chapter describes how to patch SUSE Linux or to update the operating system to a higher service pack level.

## Update of SUSE Linux Enterprise Server 10 with Océ Patch DVD

The patch DVD contains all available and well tested patches for the Linux operating system SLES10, released by Novell. The focus of the tests are the packages installed with an unattended installation and used in an Océ PRISMAproduction Server environment. All packages which are released by Novell are contained, but not tested. Packages causing errors in Océ PRISMAproduction Server will not be available for installation on the DVD. It is recommended always to use the latest available patches.

*Note:*
ONLY install patch DVD for Service Pack 1 on Service Pack 1 installations, for Service Pack 2 installations ONLY use the patch DVD for Service Pack 2 (and so on).

*Note:*
To install additional software packages on the Océ PRISMAproduction Server server the YaST software installer will ALWAYS choose the latest version of the software package. As the latest version is located on either the latest Patch DVD or on the installation DVD it is DEFINITELY REQUIRED to have at LEAST the original installation DVD AND the latest Patch DVD available.

*Note:*
It is ABSOLUTELY REQUIRED to update the system always after any change of installed system packages. Océ PRISMAproduction Server Software may fail if you miss the update at this time!

*Note:*
The installation of SUSE Linux Enterprise Server Service Pack 2 patches may need more than one installation run to be finished. The second and following runs have to be started manually as the tray icon shows. You should repeat this until the tray icon shows green (only **optional** updates remaining – which you should **not** install – ) or shows a globe which means, that all updates are installed.

**Installing SLES10 Patches from DVD**

| Step | Action |
|---|---|
| 1 | Insert the SLES 10 SP'X' DVD into the drive (X must be replaced by the respective installed Service Pack Level).<br>Cancel any automatic action from the operating system! |
| 2 | Open YaST / Software / Patch CD Update. |
| 3 | Press "Next" to load all available updates. YaST automatically detects which updates are installed on the system and which need to be installed, so there is NO manual interaction needed to select updates. All security and recommended (bugfix) updates are selected automatically for ALL installed software packages. |
| 4 | Press "Accept" to start the update. |
| 5 | On update of certain packages YaST will prompt an additional message for explicit installation (for example system libraries, kernel) which must be "accepted".<br><br>*Note:*<br>Some packages must be installed exclusively. In those cases only the exclusive patches will be installed. Please repeat the update process in order to install all other patches.<br><br>*Note:*<br>It is ONLY allowed to use the official Océ Patch DVDs to update the system. If any other – even the official Novell update is used – the mechanism of filtering patches will NOT work any more. |
| 6 | After the complete finish of the update a reboot of the system is required to take all updates into effect. |

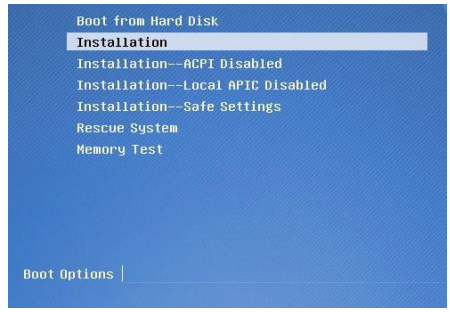
## Update of SUSE Linux Enterprise Server 10 to a Higher Service Pack Level

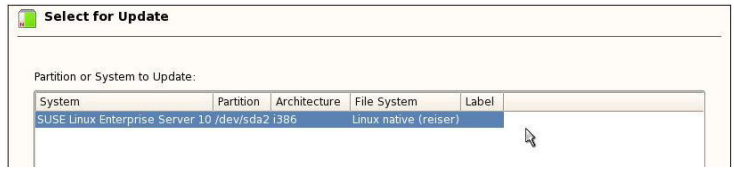
Novell releases Service Pack Versions of SUSE Linux Enterprise Server 10 on a regular schedule. These Service Packs contain all bug fixes and corrections found before the release of the corresponding Service Pack. Novell also decided to have all Service Pack levels to be seen as different versions of SuSE Linux Enterprise Server. This means that patches made for Service Pack version 1 WILL NOT install on Service Pack 2 version and vice versa. As for this issue after the release of a new Service Pack all bugfixes will be released for the latest and also the previous version of the Service Pack level. But the support of the previous Service Pack level will terminate after some time, so that all users of SUSE Linux Enterprise Server will have to update their systems to the latest Service Pack level.

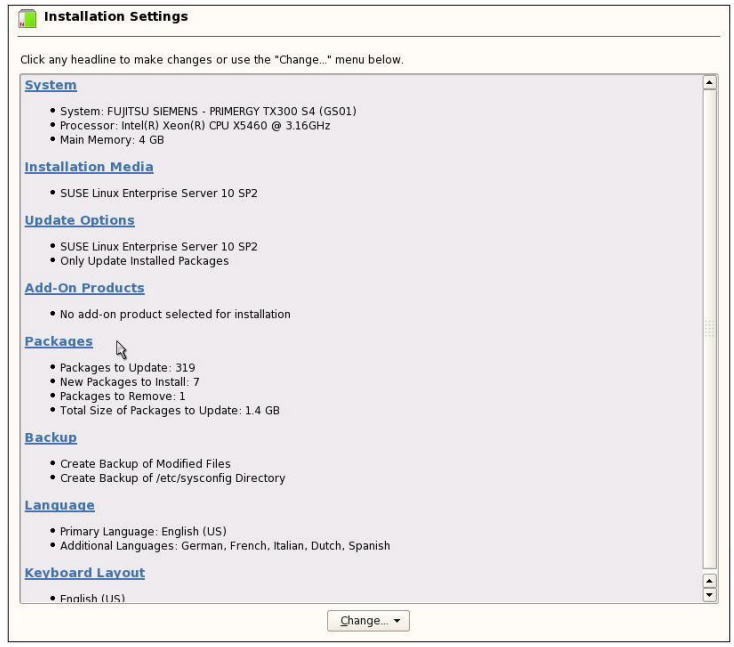
In order to simplify installation issues the Service Pack DVD is also the latest version of a full installation DVD to be used for full installation from scratch.

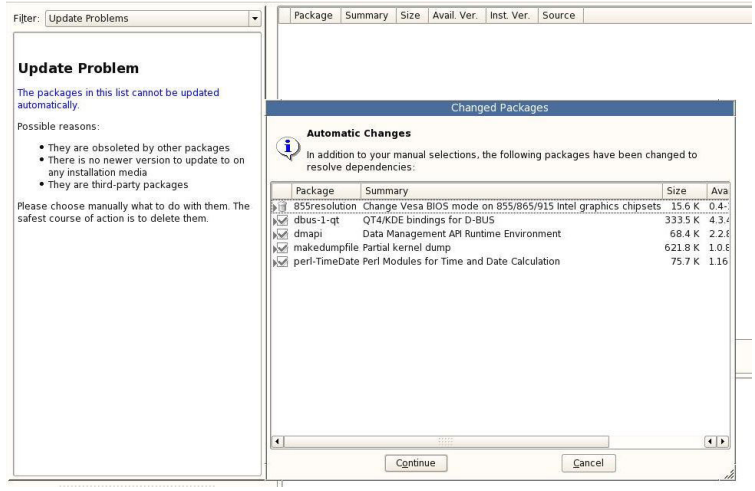
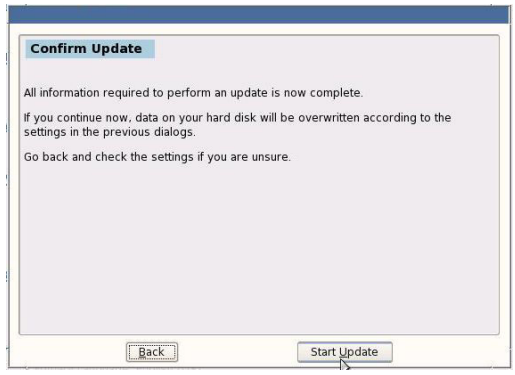
*Note:*
There is NO possibility for an UNDO of this upgrade. If there is an absolute need to have the previous version installed, it is necessary to fully install the previous version from scratch!

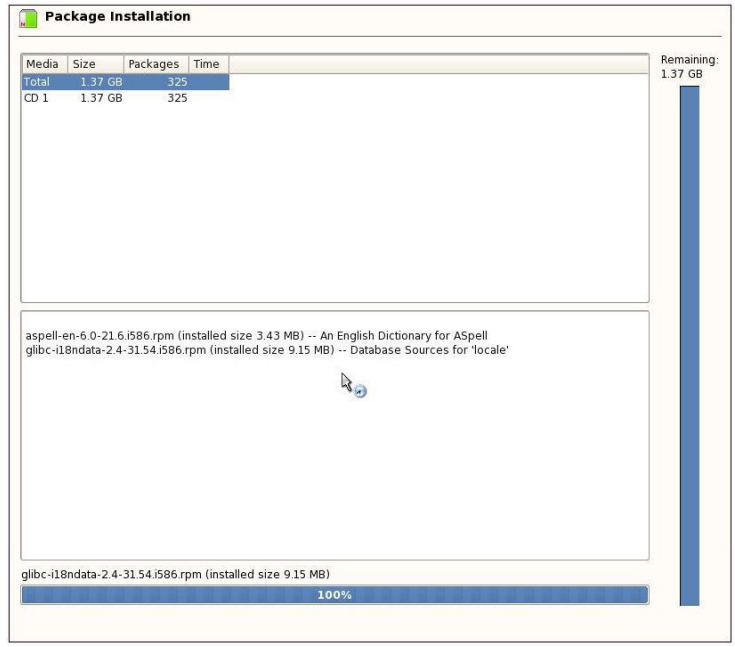
To update an Océ PRISMAproduction Server to the latest Service Pack level please follow these steps carefully:

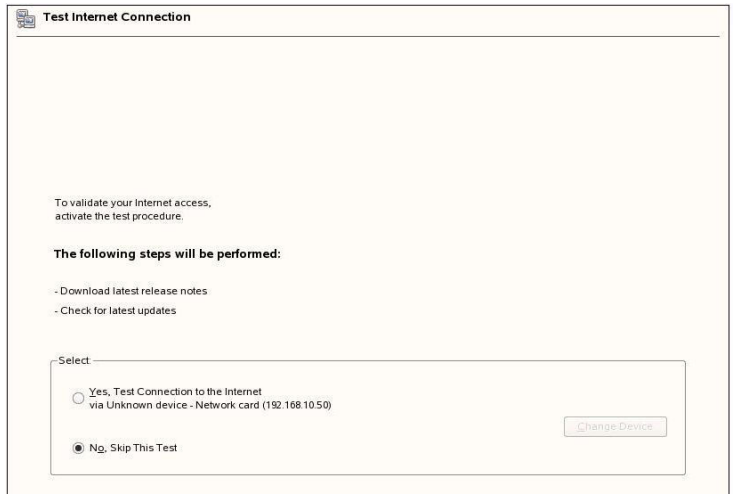
| Step | Action |
|---|---|
| 1 | Prepare the Océ PRISMAproduction Server system for a reboot of the system. |
| 2 | Reboot the server and insert the latest SUSE Linux Enterprise Server 10 Service Pack Installation DVD into the DVD drive. |
| 3 | Boot from DVD and choose menu item “Installation”, do not enter any options and boot the server.   |
| 4 | Choose the language and click “Next”. |
| 5 | Accept the License Agreement for Novell SUSE Linux Enterprise Server 10 selecting check box “Yes” and click on button “Next”. |

| Step | Action |
|---|---|
| 6 | After scanning and analyzing the computer for all installed hardware and installed operating systems select Installation Mode “Update” and click “Next”.<br> |
| 7 | Now a list of installed operating systems is shown, and there must be a single item “SUSE Linux Enterprise Server 10” which is highlighted automatically, click “Next” to continue.<br>  <br>*Note:*<br>If there are mount points specified in the '/etc/fstab' file which are NOT accessible (for example a removable storage device) an error message window occurs. Please ensure that there is no problem with the server and the missing storage device is not necessary.<br>If there is no problem, please press button “continue” to continue with the update.<br>If there is ANY problem here, choose “cancel”, cancel the whole update process and fix the problem within '/etc/fstab' file first and then restart the update. |

| Step | Action |
|---|---|
| 8 | Now all partitions are mounted and the installed software packages are examined. After that all “Installation Settings” are shown. If there is any conflict or not matching issue there will be a warning message in RED color. Please check for any error issues to solve and restart the update process again from the very beginning.<br>  |
| 9 | For a default installation there should be no error message and the section packages should just show changes of removal of obsolete packages and the installation of new packages needed (also to satisfy new dependencies). If there is an error in section software there will be a warning message for section “Packages”.<br>Choose section “Packages” and solve all conflicting selections.<br>After solving all issues click “Next” to return to main “Installation Settings”.<br><br>*Note:*<br>All Océ PRISMAproduction Server software packages will be shown in section Update problems as they are 3rd Party packages! |

| Step | Action |
|---|---|
| 10 | A popup window will now appear which informs about automatic changes to installed packages in order to satisfy new dependencies. Please accept these changes by clicking “Continue”.<br>  |
| 11 | Now click “Accept” to start the update and choose “Start Update” to confirm again the Update.<br>  |

| Step | Action |
|---|---|
| 12 | Now all installed SUSE Linux Enterprise Server packages will be updated to the latest Service Pack Level. The update will run completely automatically and reboot the server again to boot into the new kernel and environment.  Package Installation<br>Media<br>Size<br>Packages<br>Time<br>Total 1.37 GB 325<br>CD 1 1.37 GB 325<br>Remaining: 1.37 GB<br>aspell-en-6.0-21.6.i586.rpm (installed size 3.43 MB) -- An English Dictionary for ASpell<br>glibc-i18ndata-2.4-31.54.i586.rpm (installed size 9.15 MB) -- Database Sources for 'locale'<br>glibc-i18ndata-2.4-31.54.i586.rpm (installed size 9.15 MB)<br>100% |

| Step | Action |
|---|---|
| 13 | After the reboot, the system will automatically boot into the installation system to continue the installation process.<br>At the next manual interaction point the window “Test Internet Connection” will be displayed. Choose selection “No, Skip This Test” and click “Next” to continue (if choosing to do this test, the server will try to connect to the Internet and to reach Novell websites. If the DIRECT connect is not possible it will take about two minutes to timeout and to continue.<br>  |
| 14 | Now the installation process “writes the system configuration” and after that the “Release Notes” of the new Service Pack Level of the operating system are shown. Please click “Next” to continue. |

| Step | Action |
|---|---|
| 15 | Last, the “Installation Completed” window is shown. Please disable the check box “Clone This System for Autoyast” and click “Finish” to boot into the upgraded system. Installation Completed<br>Congratulations!<br>The installation of on your machine is complete. After clicking Finish, you can log in to the system.<br>Visit us at http://www.novell.com/linux/.<br>Have a lot of fun!<br>Your SUSE Development Team<br>Disable ZMD Service<br>Clone This System for Autoyast |

*Note:*
If additional software is installed by the customer this behavior can be different to what is described in this document, and can require additional actions to upgrade customer software as well. But it is NOT possible to have any information or documentation here for any of these issues.

# Configuration of SuSE Linux Enterprise Server 10

## Introduction

The following chapter explains basic configuration settings for the Linux system like the configuration of the network and the setting of date and time.

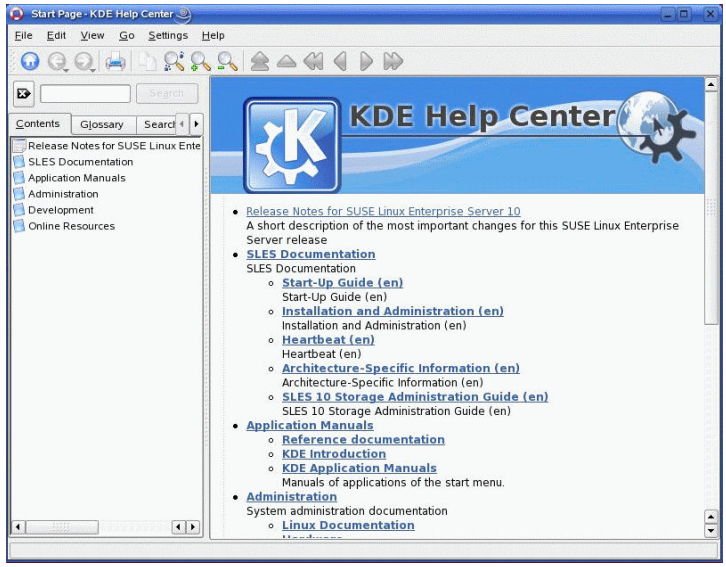
***Attention:***
If the files for the network configuration are not edited properly services may NOT start and the system will NOT work properly!

***Attention:***
All configuration items regarding the system MUST be done using YaST control center when possible.

***Attention:***
After the configuration of the network a reboot of the server is definitely required!

*Note:*
The SuSE Linux Enterprise Server Administration and Configuration Guide is automatically installed for extended documentation of the system. To access it, please open item "SuSE-Help" / "SuSE- Hilfe" in the start menu. Then choose 'SLES Admin Guide':

## Illustration




## Change the Default Network Settings

After the installation is finished, you have to change the network settings, because the unattended installation of LINUX configures the server with the following default values, which have to be changed BEFORE connecting the server to the network.

- Hostname: lxoo1234.ops.de
- Network adapter 1: 192.168.10.50 / 255.255.255.0

### Setting of Hostname and Network Addresses

*Note:*
You must not use the DHCP to add network addresses!

Syntax of host names:

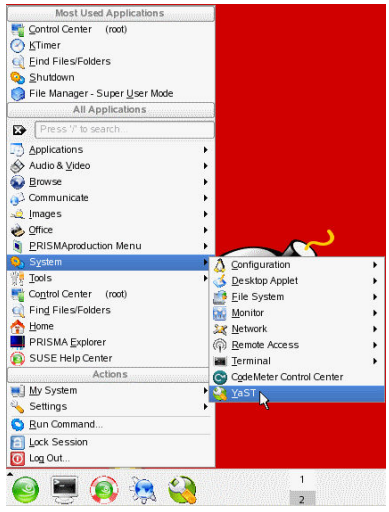
Like many operating systems do, Océ PRISMAproduction Server also supports hostnames compliant to the syntax specified in rfc952, rfc810 and rfc608 (see below).
In expansion to the rfc definitions the string length restriction for Océ PRISMAproduction Server systems has been increased up to 32 characters.

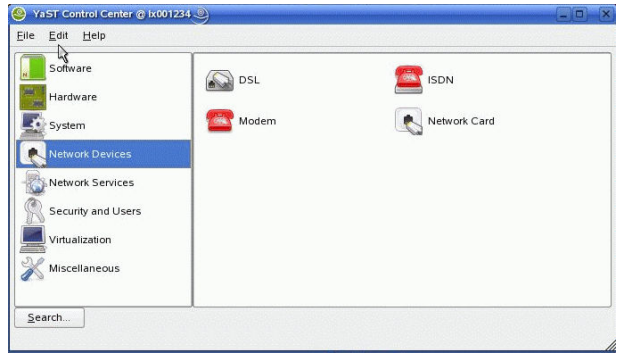
Excerpt of rfc952, rfc810 and rfc608:

A "name" (Net, Host, Gateway, or Domain name) is a text string up to 24 characters drawn from the alphabet (A-Z), digits (0-9), and the minus sign (-) and period (.). No blank or space characters are permitted as part of a name. No distinction is made between upper and lower case. The first character must be a letter. The last character must not be a minus sign or a period.
The hostname of the Linux system MUST definitely meet the above criteria - otherwise the Océ PRISMAproduction Server Software will not work. Also the format of the syntax for the file '/etc/hosts' MUST meet the following requirements (see example):

| IP-ADDRESS | FULL QUALIFIED DOMAIN-NAME | ALIAS | [MORE ALIASES] |
|---|---|---|---|
| 192.168.10.50 | lx001234.ops.de | lx001234 | alias2 alias3 alias4 |

As a minimum the fields IP-ADDRESS, FULL QUALIFIED DOMAINNAME, ALIAS must be present for each entry. Otherwise Océ PRISMAproduction Server software will NOT work correct.

| Step | Action |
|---|---|
| 1 | Login as root and open YaST Control Center.   |

| Step | Action |
|---|---|
| 2 | Choose section 'Network Devices'.<br>  |
| 3 | Enter all appropriate data and 'finish' configuration. |
| 4 | Open file '/etc/hosts' with an editor and comment out the line which represents the second network interface. This line will prevent Océ PRISMAproduction Server from working properly.<br>**Example**<br>■ 192.168.10.50 lx001234.ops.de lx001234<br>■ #192.168.20.50 lx001234.ops.de<br><br>*Note:*<br>This check and change MUST be made every time the network settings are changed! If the file '/etc/hosts' is not properly configured, Océ PRISMAproduction Server may fail or show unpredictable behavior and errors! |
| 5 | Additional entries for the '/etc/hosts' file should be made manually using an editor.<br><br>*Note:*<br>To enable all network settings, especially to set the hostname properly an additional reboot is required BEFORE installing Océ PRISMAproduction Server. |

### Network Services

All network services not needed for running Océ PRISMAproduction Server are disabled by default or even not installed at all (for example rsh, rexec, rlogin). The default configuration just runs a minimal set of services needed for proper operation of the system.

The following describes how you can activate some of these services.

### Configuring the Default ftp Server "pure-ftpd" for root Access

This configuration is NOT included within YaST and have to be done by an editor. Configuration file is

- First edit the file '/etc/pure-ftp/pure-ftpd.conf' and set the value MinUID 100 to 0:
  # Minimum UID for an authenticated user to login.
  MinUID 100 -> change to 0
- Then edit the file '/etc/ftpusers':
  comment the entry "root" by the "#" sign
  'Postfix'
  'postgres'
  '# root'
  'sapdb'
- Finally reboot the server

### Remote Access with ssh

For remote access to the server use the ssh protocol (128 bit encrypted connection). This service is enabled as default.

### Configuring the Samba Server

The Samba Server can be configured using the SuSE configuration tool YaST. The only exception is to add "Samba only user" to the system. This must be done using the command "smbpasswd". Please see the "SuSE Admin Guide" for further details.

### Enable telnet and rsh Services

This services will be configured in the xinet.d configuration (YaST -> 'Network Services' -> 'Network Services (inetd)' )
To get root access to telnet, add allowed terminal devices to '/etc/securetty', one per line. Telnet terminals are pts/1, pts/2 a.s.o.

### Open a Program with root Privileges in KDE Environment

Use 'kdesu <program>'.

## Modifying Other Settings After Installation

**Keyboard**:

| Step | Action |
|---|---|
| 1 | Login as root. |

| Step | Action |
|---|---|
| 2 | Open YaST Control Center -> section 'System' -> section 'Language'.<br> |
| 3 | Choose appropriate setting and ensure that within section Details the "UTF-8 Encoding" is disabled! The appropriate settings are:<br>"Local Settings for User root": Yes<br>"Use UTF 8 encoding": needs not to be selected<br>"Detailed Local settings": will be selected automatically |
| 4 | Finish configuration. |

**Timezone Configuration**:

| Step | Action |
|---|---|
| 1 | Open YaST Control Center -> section 'System' -> section 'Date and Time'. |
| 2 | Choose appropriate settings. |
| 3 | Finish configuration. |

### Display and Monitor Configuration

The default configuration of screen resolution is configured for standard TFT panels (1024x768, 60Hz). If this is not applicable for the given hardware setup, please open "YaST Control Center" and choose section "System" with subsection "Graphiccard and Monitor" to setup required configuration.

Please see the "SuSE Admin Guide" for further details.

## Adding Computers to an Océ PRISMAproduction Server Cluster

After a successful installation of the system, you can add other servers to build up a cluster. To do this use the 'Master/Slave' application in the 'Configuration' menu of the Océ PRISMAproduction Server 'Explorer'.

Before adding a server you have to check the following:

- The IP address of the first network card is the address, which is used by Océ PRISMAproduction Server (check this with '/etc/sysconfig/network/ifcfg-eth-id-<mac-address>'). This address must be accessible in the Océ PRISMAproduction Server network.
- Job acceptation and job processing must be switched off.
- The 'etc/hosts' file of all servers (Master and Slaves) must contain all servers of the Océ PRISMAproduction Server network. Please take care for the correct syntax: Example: '160.120.20.111 charly.ops.de charly'

*Note:*
With SuSE Linux the Printer Spooler System "CUPS" is installed as a system requirement. The complete system is unconfigured and the service is disabled by default. Configuring or using the "CUPS" Printing software WILL DAMAGE AN INSTALLED Océ PRISMAproduction Server installation which may remain unusable! Therefore it is strictly FORBIDDEN to configure or use "CUPS".

# Security and Services

## Introduction

The Linux for Océ PRISMAproduction Server security concept has changed to be much more secure = restricted.
The following services are not enabled anymore as default:

- Samba Server (DO a FULL Configuration before enabling!)
- By default root access to the server is disabled using the FTP protocol. After installing Océ PRISMAproduction Server, the Océ PRISMAproduction Server users and any additional users created are able to access the server using ftp.

*Note:*
The write access is restricted to those directories, for which the user is granted write access by the file system.

The following services are not installed anymore Apache Webserver (MUST NOT BE INSTALLED!):

- RSH server
- RLOGIN server
- REXEC server

These services can be manually installed using YaST configuration tool, section "Software", subsection "Install/Remove Software" if absolutely needed. It is not recommended to use any of these services for security reasons!
To enable the services use YaST section "Network Services" subsection "Network Services (xinetd)".
To see, which ports are opened, please login as root and enter one of the following commands:
'netstat -anp | grep LISTEN'
'lsof -i | grep LISTEN'

See also: *'Configuration of SuSE Linux Enterprise Server 10'* on page 32

*Note:*
The **inetd** daemon is enabled by default after installing Océ PRISMAproduction Server. Disabling the **xinetd** daemon is forbidden, as it is a basic service required to run Océ PRISMAproduction Server or newer.

## Services Table

The following table gives an overview about the condition of the services, which ports are used, how they are controlled, if they are installed during the initial unattended installation and which status they have concerning the Océ PRISMAproduction Server functionality:

| Service Description | Port# | Control | Status | Default |
|---|---|---|---|---|
| CodeMeter WebAdmin | 22350 | Code Meter Web Admin software | needed | started |
| Cold StandbyServer<br>Only installed if running a Cold Standby configuration using a USV | 3052 | USV control software | optional | NI |
| **HTTP Server** (must not be installed!) | | YaST | not available | NI |
| **Internet Daemon (INETD)**<br>OP: Basic IP service dispatcher<br>PP: ODS, Spool | no port | YaST | needed | started |
| Internet File Transfer Protocol server (FTP)<br>OP: Common service to share files over the Internet<br>PP:<br>■ Run Unity Rip at a Windows system<br>■ File transfer via ftp into a hot folder (HotDir)<br>■ DPconnect with Xerox Client Software | 21 | YaST | optional | started |
| JBOSS | 8080, 1099 | PP internal | needed | started |
| **LDAP Server** (must not be installed!) | | YaST | not available | started |
| **Mail Transfer Agent** | 25 | YaST | usable | closed |
| **NFS Server** | 955(udp)<br>958(tcp) | YaST | usable | closed |
| OP: X-Windows | 6000 | YaST | usable | closed |

| Service Description | Port# | Control | Status | Default |
|---|---|---|---|---|
| **OpenSSH Secure Shell Daemon (SSH)**<br>OP: Provides access to a remote system. It replaces (not installed) telnet, rlogin, rexec and rsh with encrypted communications.<br>PP: Run Xerox or small printers with PS-LPR | 22 | YaST | usable | started |
| PP: Account Server (accserv) | 1203 | PP internal | needed | started |
| PP: Communicator execution deamon (exed) | flexible | PP internal | needed | started |
| PP: Explorer Server Control during start and stop | 1208 | PP internal | needed | started |
| PP: Internal spool access service (libspld) | 651 | PP internal | needed | started |
| PP:<br>■ Java RMI (established connection)<br>■ Access for java clients (Explorer, Launcher) to Explorer server | 32768 - 65536 | PP internal | needed | - |
| PP:<br>■ Java RMI Registry (listener to initialize connection)<br>■ Access for java clients (Explorer, Launcher) to Explorer server | 1206 | PP internal | needed | started |
| PP: Java Server interface Access for non java clients (for example PJM commandline) | 1207 | PP internal | needed | started |
| PP: LCDS (SCT) | 1500 | PP internal | needed | started |
| PP: MessageWindow <-> message daemon (msgs) | 1209 | PP internal | needed | started |
| PP: Online Help Server Port is opened while using the online help window | 1210 | PP internal | needed | started |
| PP: Order Distribution System ODS: Internal communication (odsnetm) | 1200 | PP internal | needed | started |
| PP: PJM Server (pjmdm) Explorer server, Spool <-> ODS | 1201 | PP internal | needed | started |
| PP: Receive line printer data send via lpr (lpd) | 515 | PP | optional | closed |
| PP: Receiving jobs send via download (downloadd) Only the configured ports are opened. | 1025-65536 | PP | optional | closed |

| Service Description | Port# | Control | Status | Default |
|---|---|---|---|---|
| PP: ResMng GUI <-> Communicator (Resource Manager) | 1555 | PP internal | needed | started |
| PP: Simple Network Management Protocol (snmp) Interface for read/write PRISMA configuration and job parameters<br>Planned to become closeable via configuration<br>PP: Oce post script driver | 161-162 | PP | needed | started |
| PP: sna2tcp <-> li in id-mode (LU6.2) - not available at the moment | 6201-6216 | PP internal | optional | closed |
| PP: Spool-Daemon <-> ODS (splsocd) | 1300 | PP internal | needed | started |
| PP: Web Server (HTTP) Access for java clients (Explorer, Launcher) to Explorer server for loading java classes | 80 | PP internal | needed | started |
| PP: Mirror daemon is needed to be able to receive Data files on the mirror server.<br>Only running when Interconnectivity License exists on the server. | 8000 | PP | optional | closed |
| PP: Postgres database for Print File Library | 5433 | PP internal | needed | started |
| **PRISMA_Server**<br>PP: General PRISMA startup. Please do not alter | | YaST | needed | started |
| **Proxy Server** (configure a Proxy Server for KDE applications)<br>Not a local service | - | YaST | - | not configured |
| **Remote Administration (VNC-Server)** | 5901 | YaST | usable | closed |
| **Remote Execution server (Rexec)**<br>OP: Remote execution facilities with authentication based on user names and passwords.<br>PP: Not used | 512 | YaST | usable | NI |
| **Remote Login server (Rlogin)**<br>OP: Remote login facility with authentication based on privileged numbers from trusted hosts.<br>PP: Not used | 513 | YaST | usable | NI |

| Service Description | Port# | Control | Status | Default |
|---|---|---|---|---|
| **Remote Shell server (Rshell)**<br>OP: remote execution facilities with authentication based on privileged numbers from trusted hosts.<br>PP: Print File Manager PFM (PP V3.00 only)<br>Some specific "DocuTech" features | 514 | YaST | usable | NI |
| **RPC portmapper**<br>OP: Convert RPC program numbers into DARPA protocol port numbers. Used by networking clients like NFS or NIS | 111 | YaST | needed | started |
| **Samba (Windows File Server smbd)**<br>OP: SMB server for network services to SMB clients including MS Windows, OS/2, Linux<br>PP: Audit/NT -RIP | 137 138 139<br>445 | YaST | optional | not started |
| ServerView RAID Manager<br>Only available if hardware RAID controller is installed in the server | 3173 | Command Line | optional | NI |
| **Telnet Protocol Server**<br>OP: The DARPA telnet interactive communication protocol<br>PP: Not used | 23 | YaST | usable | NI |
| **TFTP Service** | | YaST | not available | NI |
| **WOL (Wake On Lan)** | | YaST | usable | not configured |

**Abbreviations**:

| Abbreviation | Description |
|---|---|
| OP: | Operating System |
| PP: | Océ PRISMAproduction Server Client |
| **Column 'Control'**: | |
| KDE: | Service administration via KDE Control Center |
| PP: | Service administration is done via POD, APA, LCDS, OLDS, PCL configuration |
| PP internal: | Océ PRISMAproduction Server internal connection, not configurable |

| Abbreviation | Description |
|---|---|
| **Column 'Status'**: | |
| needed: | Service is needed for basic functions and can not be closed |
| not available: | Must not be used |
| optional: | Service used for specific Océ PRISMAproduction Server features only |
| usable: | Can be used if required, it must be installed, configured and/or started |
| **Column 'Default' describes the Status after installation (OS and PP)**: | |
| NI | Not installed per unattended installation |
| closed: | Closed service |
| configured: | already configured service |
| not configured: | no configuration is done during installation |
| not started: | service in inactive |
| started: | service is running |

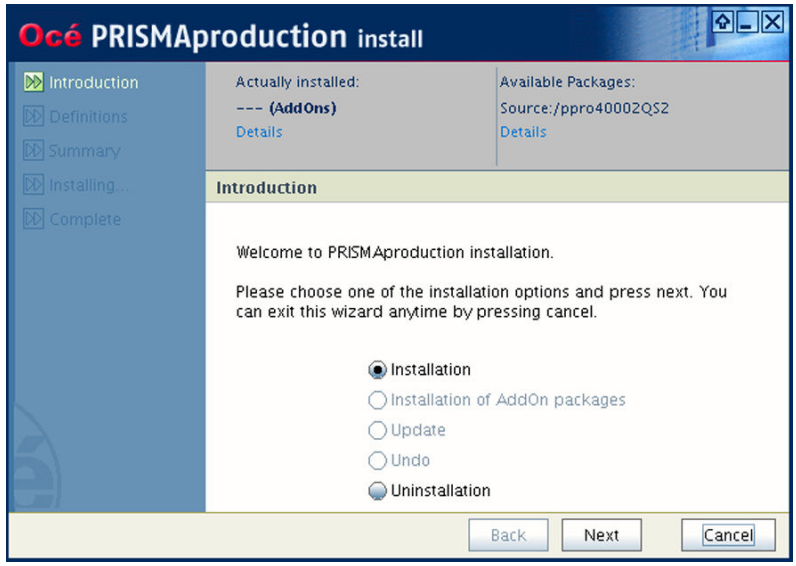
# Océ PRISMAproduction Server Installation/Deinstallation/Update

## Introduction

Before installing Océ PRISMAproduction Server, the Linux server has to be fully configured (above all: Hostname, IP address and network). The installation of Océ PRISMAproduction Server has to be done with the "install.prisma" script delivered on the Océ PRISMAproduction Server CD.
Installation changes (including "Package update" and "Undo ...") will cause loss of configuration settings (depending on the exchanged packages). So please backup your configuration settings first!
During the installation/update procedure, the licenses are not checked or changed. New licenses have to be entered after installation via the license manager window. The licenses are part of the configuration backup.

The information shown during installation is intuitive. Please follow these instructions.

## Illustration




## Installation Steps

1. Stop all printing, converting and transmission processes.
2. Log out of Océ PRISMAproduction Server and login as root.

3. Save the Océ PRISMAproduction Server configuration using the 'Backup/Restore' application under 'Configuration' in the Océ PRISMAproduction Server 'Explorer' (see *"Backup/Restore': Window"* on page 330).
   Close the 'Explorer' window when backup is finished.

*Note:*
Perform this action only if want to keep the configuration of the currently installed version.

*Note:*
All servers of the Océ PRISMAproduction Server cluster have to be up and running as the backup is automatically done for the whole cluster. If a Windows computer running the UnityRIP is part of the cluster, you have to shut it down and disconnect it before backup creation.

4. Installation/Update/Undo/Uninstallation
   **Installation from the Océ PRISMAproduction Server release DVD**:
   - Insert the Océ PRISMAproduction Server DVD. The DVD is mounted automatically.
   - Change to the DVD directory (which is located at path '/media/<DISK-ID>').
   - Execute './install.prisma'.
   - Select "Installation" from the menu.
   - After the installation is finished, execute "cd /" (otherwise the umount command will not work).
   - Unmount the DVD with 'umount /media/<DISK-ID>' (if the auto-open feature of the DVD is disabled, all disks will be mounted anyway but there will be no notification. But the path '/media/<DISK-ID>' will be created in any case).

   **Installation from hard disk**:
   - Copy all files provided to an empty directory.
   - Execute 'cd <directory>'.
   - Execute 'install.prisma'.
   - Select "Installation" from the installation dialog.

   **Installation of AddOn packages**
   - Change to the DVD directory.
   - Execute 'install.prisma'.
   - Select "Installation of AddOn packages " from the menu.
   - Select the desired packages in the list of available AddOn packages.

   **Update**
   - Execute 'install.prisma'.
   - In the installation dialog, the version which is actually installed and the source for the update installation are displayed below the title line.

- Select "Update" to open a new screen and choose one of the following possibilities:
  **Update new packages**:
  Only new packages or higher versions will be installed.
  **Update all packages**:
  All available packages will be exchanged, including older/identical versions.

*Note:*
Update is not possible between V3 and V4.

**Undo** (rollback of latest Océ PRISMAproduction Server Update)
- Execute 'install.prisma'.
- Select "Undo" from menu.

**Uninstallation**:
- Execute 'install.prisma'.
- Select "Uninstallation" from the installation dialog.

5. Define the Océ PRISMAproduction Server cluster

*Note:*
Only necessary if the Océ PRISMAproduction Server cluster consists of more than one server.

Enter the Océ PRISMAproduction Server slave server IP addresses In the 'Master/Slave' application under 'Configuration' in the Océ PRISMAproduction Server 'Explorer' (see *"Master/Slave' Configuration"* on page 301).

6. Import Océ PRISMAproduction Server licenses
   - Connect the CodeMeter license dongle to the system.
   - Open the 'Licenses' application under 'Configuration' in the Océ PRISMAproduction Server 'Explorer' (see also *"Licenses"* on page 313).
   - Assign each available license to the server(s) by double clicking the respective cell in the server column and selecting the number of licenses from the drop down list.
7. Restore Océ PRISMAproduction Server configuration using the 'Backup/Restore' application under 'Configuration' in the Océ PRISMAproduction Server 'Explorer' (see *"Backup/Restore': Window"* on page 330).

*Note:*
Only necessary if you want to use the configuration of a previous installed version.

*Note:*
Restore only works, if the same number of servers are defined inside the cluster and at least the same number of valid licenses are configured.

*Note:*
Session files (contain stored sessions, suffix .psn in the directory '/u/prismapro/data/shared/') are not part of the 'Backup/Restore' component. They have to be saved manually.

# Océ PRISMAproduction Server Licenses

## Introduction

Océ PRISMAproduction Server V4.0 licenses are stored in a CodeMeter dongle (CmStick) , a small USB device which must be plugged-in at the Océ PRISMAproduction Server master server.
The license dongle is not used during Océ PRISMAproduction Server installation. Therefore almost all Océ PRISMAproduction Server packages will be installed but must be activated by importing the licenses immediately after the installation process.
After installation use the license manager within the Océ PRISMAproduction Server 'Explorer' to install all licenses from the dongle. Login as user root, service or admin and select the menu item 'Configuration' -> 'Licenses' in the 'Explorer' window. If a new license is added, the product will be available after logout and relogin. You can also import all licenses for all slave computers in the cluster on the master. Before you do so you have to configure all slaves on the master.
Exceptions for separate software CD's including additional license:

- Third party backup software Microlite BackupEDGE
- Océ Document Designer Advanced

## Océ License Manager

Before the licenses of the Océ PRISMAproduction Server modules can be activated, the CmStick has to be configured unsing the configuration application "Licenses" in the Océ PRISMAproduction Server 'Explorer'.
See: *"Licenses"* on page 313

## License or Dongle Update

The system detects a dongle update or exchange. In case all assigned licenses are fitting to the new dongle context, the configuration is automatically updated. Otherwise a new configuration must be created by using the menu entry 'Edit' -> ' Reconfiguration' in the License configuration application.

The CodeMeter software is installed as a part of the Océ PRISMAproduction Server installation.

To update or add new licenses you have to perform the following steps:

| Step | Action |
|---|---|
| 1 | In the main KDE menu go to 'System' and open the 'CodeMeter Control Center'. |
| 2 | Select the tab 'Licensing'. |
| 3 | Click on the button 'Execute Update'. With this option you can add new licenses or update the existing licenses content. |
| 4 | Select the update file (with the same or similar file name) and click 'Open'. |
| 5 | Exit the CodeMeter Control Center ('File'-> ' Quit') |
| 6 | Open the Océ PRISMAproduction Server 'Explorer' and then 'Configuration' -> 'Licenses'. |
| 7 | Perform the license assignment as described in *"Licenses"* on page 313. After this action you can work with Océ PRISMAproduction Server. |

# Change IP Address, Host and Domain Name

## Introduction

Modification of the hostname, IP-address or domain name on Océ PRISMAproduction Server V4.0 can be done via the script '/u/prismapro/bin/modpcname'.
This script can also be used for the verification of the host name.

***Attention:***
Modification of the hostname or IP-address will cause that the import function for exported archive files will not work afterwards! Additionally all currently defined printers in the Printer Configuration will be deleted afterwards.

## Assumptions:

- Job acceptance is deactivated
- No jobs in job queue
- Stand-alone system (no Master/Slave system)
- No Explorer running
- No Océ PRISMAproduction Server activities
- Logged in as 'root'

## Script Process

The information shown during execution of '/u/prismapro/bin/modpcname' is intuitive. Please follow these instructions, as shown below:

```
After changing the name of a PRISMA server, all jobs are in-
valid.
Are all PRISMA jobs finished (y / n / [q]uit)? Y
```

On 'n' or 'q' the script will be terminated.

```
Are all PRISMA windows closed (y / n / [q]uit)? Y
```

If you are logged in as an Océ PRISMAproduction Server user the following message is displayed and the script is terminated. Otherwise the script continues to stop the system:

```
PRISMA user 'ID' is logged in.
Logout all PRISMA users and restart the command, please.
```

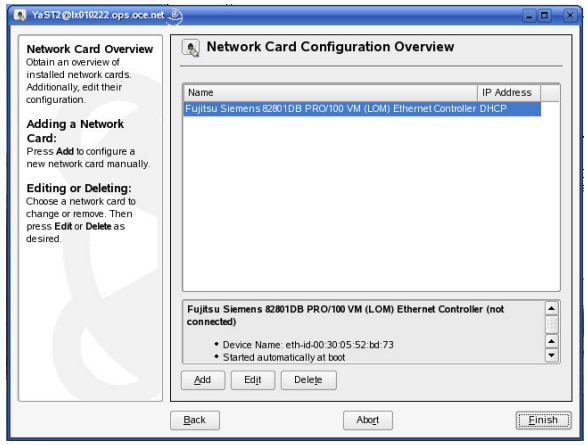
```
Stopping PRISMA ....

Stopping Explorer server... Explorer server stopped.
Stopping resource manager ...
Stopping communication processes ...
Delete message queues for communicator processes...Ok.
i370-channel driver already unloaded.
Stopping UCD snmpd: .
```

At this time the Suse Linux configuration tool YAST is started with the 'Network cards configuration':

YaST2@lx010222.ops.oce.net
Use NetworkManager to have a desktop applet manage connections for all interfaces. It is well-suited to switching among wired and multiple wireless networks.
Use the Traditional Method with ifup if you do not run a desktop environment (GNOME or KDE) or need to use multiple interfaces at once.
Network Setup Method
Network Setup Method
User Controlled with NetworkManager
Traditional Method with ifup
Back
Abort
Next

After selecting the 'Network Setup Method' click 'Next' and the 'Edit' to modify the settings of the IP address and hostname (in a separate window) for the selected network card:


YaST2@lx010222.ops.oce.net
Network Card Overview
Obtain an overview of installed network cards. Additionally, edit their configuration.
Adding a Network Card:
Press Add to configure a new network card manually.
Editing or Deleting:
Choose a network card to change or remove. Then press Edit or Delete as desired.
Network Card Configuration Overview
Name
IP Address
Fujitsu Siemens 82801DB PRO/100 VM (LOM) Ethernet Controller DHCP
Fujitsu Siemens 82801DB PRO/100 VM (LOM) Ethernet Controller (not connected)
Device Name: eth-id-00:30:05:52:bd:73
Started automatically at boot
Add
Edit
Delete
Back
Abort
Finish

Click 'Next' to confirm and finish your modifications. The following messages are issued on the screen:

```
Test 'hostname'.............................Ok
Test own entry in '/etc/hosts'..............Ok
Test masters entry in '/etc/hosts'..........Ok
Test the local network......................Ok
Test free disk space........................Ok

Changes done successfully.

'/etc/hosts' was only changed for the local system.
Check this file for additional network changes, please.


Network changes are active after 'reboot'.
'reboot' the system now (y / n / [q]uit)?
```

*Note:*

After the reboot the new settings become valid. Remember that all modifications affect the local server only. You have to modify the '/etc/hosts' and if required '/etc/hosts.allow' individually on all other servers, which will be connected to this Océ PRISMAproduction Server server.

# Modify Adaptec Bios Settings for older Tape Drives

## Introduction

For older tape devices changes needs to be made in the Adaptec host adapter BIOS. These are devices which have a 50 pin instead of a 68 pin (wide) SCSI connector. Examples: Most M4 Data cartridges and tape drives, QIC tape drives up to 1.2 or 8 GB. The new QIC tape drives with 50 or 100 GB have a wide SCSI connector and do NOT need any changes.

## Steps

1. Reboot system.
2. When SCSI adapter is seen press Ctrl-A.
3. Select 'SCSI device configuration'.
4. For all SCSI id's where older tape devices are connected repeat step 5 and 6.
5. Set 'Max. Sync Transfer Rate (MB/s)' to 10 MB/s, or when 'Initiate wide Negotiation' is NO then to 5MB/s.
6. Set 'Initiate wide Negotiation' to NO ('Max. Sync Transfer Rate' now changes from 10 to 5 MB/s).
7. Save and leave Adaptec bios settings menu and reboot system.

# Chapter 2
# Remote Access to the Océ PRISMAproduction Server 'Explorer'

# Access with the 'Explorer' Launcher

## Introduction

Océ PRISMAproduction Server 'Explorer' is the main application for accessing and controlling Océ PRISMAproduction Server. The 'Explorer' itself is a framework under which the actual Océ PRISMAproduction Server applications run. The 'Explorer' and its applications are implemented in Java and therefore are platform independent.
To keep things simple the term Océ PRISMAproduction Server 'Explorer' will be used for the combination of the 'Explorer' framework and the applications throughout this chapter. If some issues regard exclusively either the framework or a specific application this will be addressed explicitly.
The Océ PRISMAproduction Server concept is highly client-server based where the 'Explorer' is a thin client. It doesn't need any permissions on the client side (except when local files or resources should be included in a job).
So the Océ PRISMAproduction Server concept itself encourages using the 'Explorer' in a distributed environment and accessing Océ PRISMAproduction Server from desktop computers.

You can access the Océ PRISMAproduction Server 'Explorer' from outside a server cluster via the **'Explorer' Launcher**.

With the Launcher, the local file system is accessible, applications can be started by the 'Explorer'.
For example when clicking on a PDF file, Acrobat is invoked automatically. Also the system language can be modified.
The following two chapters explain how to install and use this functionality.

*Note:*
In Océ PRISMAproduction Server V4 the former **Java Web Start** functionality has been replaced by the Launcher application.
You can still use Java Web Start for some modules but it's not supported anymore.

## Highlights

- You can use the complete functional range of the Océ PRISMAproduction Server 'Explorer' from each desktop computer. That means the Océ PRISMAproduction Server system can be configured, jobs can be submitted and controlled.
- The java application is downloaded from the Océ PRISMAproduction Server server to your desktop computer where it is cached. Once cached it can be started quickly.

- There is no Java Web Start specific know how needed. A web browser is used to establish "initial communication". From then on the Océ PRISMAproduction Server 'Explorer' can be accessed like a local application by a desktop.

As from the user perspective the Launcher runs under the hood (only a small splash screen during loading reminds you of the Launcher), one gets the impression of running the 'Explorer' inside the native Océ PRISMAproduction Server environment. The user feels "closer to the system", with all the advantages and disadvantages if you are working on the system level: you can do more but you also have to know more.

## Océ PRISMAproduction Server and Launcher

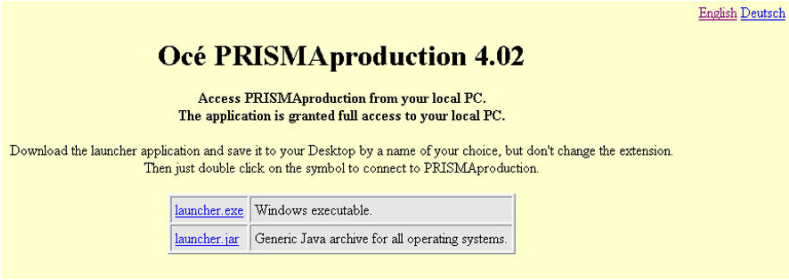
Most of the benefits when using the Launcher to run the Océ PRISMAproduction Server 'Explorer' have been listed above. Nevertheless there are a few Océ PRISMAproduction Server 'Explorer' specific issues worth mentioning:

- The Launcher guarantees that Océ PRISMAproduction Server Explorers from different Océ PRISMAproduction Server systems can run on the same desktop computer. The Océ PRISMAproduction Server systems may also differ in their release levels. The Java context for the 'Explorer' is defined in the launch protocol file JNLP on the Océ PRISMAproduction Server server. Even 'Explorer' versions needing different JRE's can run on the same PC as the Launcher automatically picks the right JRE (assuming it has been installed).
- A Web browser is used for starting the 'Explorer', but there is no risk of incompatibilities in the Java Runtime Environments of the browsers. Even browsers which do not support Java at all or have Java support disabled can be used.

## Launch the 'Explorer'

The Océ PRISMAproduction Server server must be registered in the 'hosts' file of your desktop computer (for Windows: '\WINNT\system32\drivers\etc\hosts'). In addition it is presumed that JRE/JDK greater or equals 1.5 is installed on your system.
The Launcher gets a connection error if the host name of the Océ PRISMAproduction Server server contains a '_' (underline). See host name syntax description in *'Configuration of SuSE Linux Enterprise Server 10'* on page 32.

The 'Explorer' Launcher can be downloaded from each Océ PRISMAproduction Server master server. A Launcher download page is offered. Type in the following URL: 'http://<master>/explorer/launcher.jsp ' and the following screen appears:


English Deutsch
Océ PRISMAproduction 4.02
Access PRISMAproduction from your local PC.
The application is granted full access to your local PC.
Download the launcher application and save it to your Desktop by a name of your choice, but don't change the extension.
Then just double click on the symbol to connect to PRISMAproduction.
launcher.exe
Windows executable.
launcher.jar
Generic Java archive for all operating systems.

The Océ PRISMAproduction Server master can be addressed either by name or by IP address. The type of addressing is of importance because the Launcher downloaded is explictely linked to that address. If the address has changed, the Launcher must be downloaded again (for example if the current Launcher has been downloaded via IP address and the IP address of the server has changed, respectively via name and the name has changed).

The Launcher is offered in the Web Page in two variants:

- As an executable for the MS WINDOWS platform.
- As a JAR archive for all operating systems.

Advantage of the "Executable" version:

- The Océ PRISMAproduction Server 'Explorer' Icon is associated with the executable.
- The Java Runtime System is automatically located.

The JAR version is a pure Java archive and therefore platform independent. On the SuSE LINUX and MS Windows platform JAR files are automatically associated with the Java Runtime via the file extension mechanism (in case a Java Runtime has been installed). If the download is targeted to the desktop the 'Explorer' can started afterwards by just (double) clicking on the icon.

*Note:*
The proposed file name for the Launcher is "Océ PRISMAproduction Server (<master>).<jarlexe>". It could be renamed in the save dialog or later on, but the extension must be kept.

## Configuration

The Launcher must always be downloaded from the appropriate Océ PRISMAproduction Server master as it is configured automatically on the server dependent on the current client connection. It should never be copied directly among client hosts.
The configuration becomes part of the JAR respectively EXE file and is not applicable to modifications on the client site. If any configuration parameters change (at the moment just the host name or IP address) the current version or the Launcher must be deleted and a new one must be downloaded.

*Note:*
When a Launcher is deleted, its Cache is also to be deleted. About where the cache is located see chapter 'Caching' below.

## Miscellanous

### Caching

The Océ PRISMAproduction Server Launcher also uses a caching mechanism to speed up the loading process. The application is downloaded once, cached, and later on only newer versions are downloaded again. The cache is located in the users home directory under
' .prisma/launcher-cache/http$§§<master>§explorer§explorer.jnlp'
When the Launcher is downloaded again because the <master> address has changed, the subdirectory 'http$§§<old-master>§explorer§explorer.jnlp' should be deleted.

### Compatibility Issues

As the Océ PRISMAproduction Server Launcher is installed locally there is a compatibility issue when the server environment changes.
To avoid user inconvenience the following policy will be pursued: the interface between client and server will be kept downward compatible; that means if the user doesn't need any upcoming extensions he can stay with the current version.
A new version must only be downloaded in case of a necessary bugfix, a name / IP address change or when requesting a new feature.

# Chapter 3
# User IDs and Access Rights

# User IDs and Access Rights

## Introduction

With Océ PRISMAproduction Server you can configure a very flexible access concept which allows to provide users with different roles and permissions. The basic intention is to configure the access concept in such a way that is meets most of the requirements of the daily routine.

For example a user task could be to monitor and operate the system but not to unintentionally modify anything. Another task could be to administrate and to configure the system. The latter user has to be provided with much more permissions to fulfill his tasks than the first one.

Therefore it is possible to create different users in Océ PRISMAproduction Server. Every user logs on to the system with his user name (and password).
Users can have different permissions. The administrator provides users with permissions by assigning a permission group. A permission group is a collection of charactaristic attributes of a specific user role and permissions which can be activated and deactivated.
Permission groups can be configured individually (see *"User Management': 'User Permissions"* on page 271).

## Predefined Users and Permission Groups

To be able to work with the system after a new installation, four basic users are predefined. Predefined basic permission groups of the same name are assigned to these users. Neither basic user nor basic permission group can be deleted or modified. If a user logs in with a basic user name or belongs to a basic permission group, he consequently always works with the same permissions.
The following users and permission groups are predefined in the system. The basic users are configured in such a way that the rights of the user **operator** are most restricted. The users **applic** and **admin** have more rights whereas the user **service** has all permissions.

| Basic User | Basic Permission Group | Description | |
|---|---|---|---|
| operator | Operator | Printer Operator | has only permissions to monitor and operate the print process:<br>■ access to the configuration components is restricted<br>■ cannot access the LINUX operating system |

| Basic User | Basic Permission Group | Description | |
|---|---|---|---|
| applic | Applic | Application Engineer | additional permissions compared to user operator:<br>■ extended access to the configuration components |
| admin | Admin | System Administrator | additional permissions compared to user applic:<br>■ access to almost all Océ PRISMAproduction Server components as well as access to the operating system |
| service | Service | Service Engineer | additional permissions compared to user admin:<br>■ access to all Océ PRISMAproduction Server components and diagnostic tools |

To realize a more flexible user concept, the administrator can create additional users as well as additional permission groups, which are provided with different permissions.

## Individually Defined Users and Permission Groups

The individually adjustable user management in Océ PRISMAproduction Server is realized on the basis of the basic permission groups. Thus the creation of a new permission group is only possible by copying an existing group. The copy of a permission group is renamed and it's editable permissions can now be activated or deactivated.

## User Roles

The table above shows that the basic user groups have a set of rights, which ensure that the typical tasks of the group can be performed. This set of rights can be called the user role.

The method of copying permission groups ensures that every user defined permission group is derived from a basic permission group. The default group, from which the current permission group is derived, describes the user role. By copying a permission group, the set of rights which describes the user role is transferred to the copied group. Because user roles are derived from the default permission groups, these user roles exist: **operator**, **applic**, **admin** or **service**.

## Permissions

Basically you can modify the permissions of a user defined permission group freely without taking care of the origin of the permission group. Certain permissions though, which are typical for a user role, for example that the operator has only restricted access to the Océ PRISMAproduction Server configuration, cannot be modified.
Examples for sections within which you can activate or deactivate single permissions independent of the corresponding user role:

- Access jobs of other users
- Job viewer job modification settings
- Accounting server / message server settings
- Explorer settings
- Print Job Manager settings (for example "Production" or "Expert" mode, for example working only with predefined print jobs or modifying and saving ticket settings)
- Printer status viewer settings
- Media assignment settings
- Explorer session settings

See *"User Management': 'User Permissions"* on page 271 for a detailed description of the switchable permissions. The 'User Permissions' application also indicates which permissions of which default user are active or inactive.

## Examples for Permissions and Attributes connected to User Roles

*Note:*
These permissions and attributes cannot be modified.

User role **operator**
has all permissions to monitor and operate thew system:

- display all messages
- shut down the system
- import print data from a 9 track tape or a 18/36 track cartridge
- activate/deactivate Host Download
- change the own password
- very restricted access to the configuration applications, very few modifications possible
- execute shell scripts and programs, which have been stored in a "userscript" directory by the service engineer

User role **applic**

- advanced access to the configuration applications
- manage print resources via the user interface

User role **admin**

- full access to all configuration applications (Licenses, Backup/Restore, Printer Configuration)
- modify all settings of the operating system
- work with diagnostic tools like "analyze"

User role **service**

- work with additional tools, create and delete user scripts

# Chapter 4
# POD-Module Operation

# 'Print File Manager'

## 'Print File Manager' (PFM)

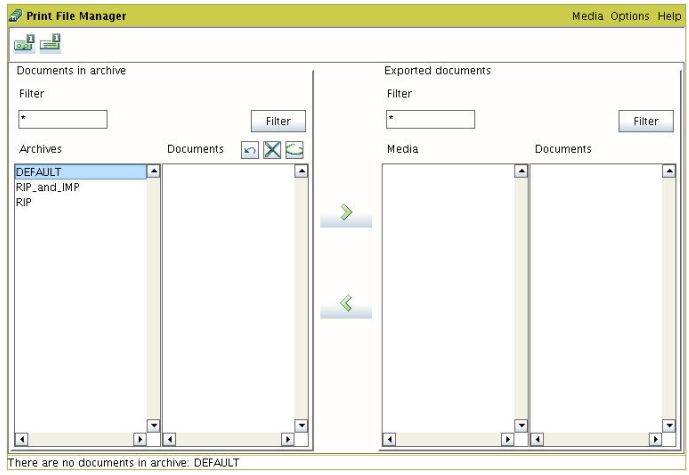
### Introduction

The 'Print File Manager' (PFM) is the component of the Océ PRISMAproduction Server server system that you use to store printer data in either native or print-ready format. You can store this data in the Print File Library or in a permanent archive. Currently, the Océ PRISMAproduction Server server system supports only the PFL for file storage. By keeping data, you can save time because the files do not need to be reprocessed if you want to reprint them, and you have an absolute guarantee that the document will look exactly like the original.
The PFM has three main functions: it records data, manages data and transfers data to and from other media. At present, the PFM can manage only IOCA data, so it is available only for the POD-Module for I mode printers.

- **Recording data**: This element of the PFM works with the Print Job Manager (PJM). You, as the user, have no direct contact with this element. If you activate the 'Store' option together with either the 'In PFL' or 'As Preprint' option while defining the job ticket, the PFM will copy the data to the Print File Library in accordance with your setting once the data has been composed.
- **Managing data**: You can make configuration settings via a GUI to determine how documents will be managed in the PFL.
- **Transferring data**: You can transfer data from PFLs to devices (tapes or other computers) that you select via the GUI, and import data from these devices into a PFL.

The PJM manages the reprinting of files from the Print File Library. With the help of integrated PFM functions, it can display the contents of the PFL and therefore present documents to be reprinted directly on its user interface (PFL data folder in the file selection box).
The Default Print File Library is held on the ODS master, and is under the control of the Océ PRISMAproduction Server file management system.
It is possible to keep several PFLs on any servers in the ODS network.
All PFLs can be configured as public or private repositories. You make this setting within the Océ PRISMAproduction Server 'Explorer' under 'Configuration' -> 'Archives' (see *''Archives': Overview'* on page 441). You can also determine whether the PFLs are each to be separate entities that can be addressed individually, or whether they are to be dependent and operate in mirror mode.
The size of the PFLs is limited only by the disk space available on the server concerned. So there is no need to reconfigure the PFL in the event of an overflow.

## Illustration




## Print File Manager Window

All administrative and transfer functions are executed via the PFM window which you start by clicking 'Print File Manager' in the Explorer tree view. You need administrator access rights to use these functions.
There are also functions for creating folders and for renaming and deleting files.

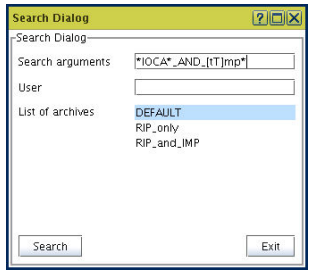
The main window has functions for exporting documents from a PFL to an external medium (a tape or another computer system) and for importing them back into a PFL. There are also various functions for manipulating documents (deleting and renaming them, for example).
Since saving documents for reprinting will soon fill up a PFL ("Who knows, we might need it again, soon!"), it is important to have an option to export files to an external storage medium. This is particularly important given that a PFL is usually on the Océ PRISMAproduction Server print servers.

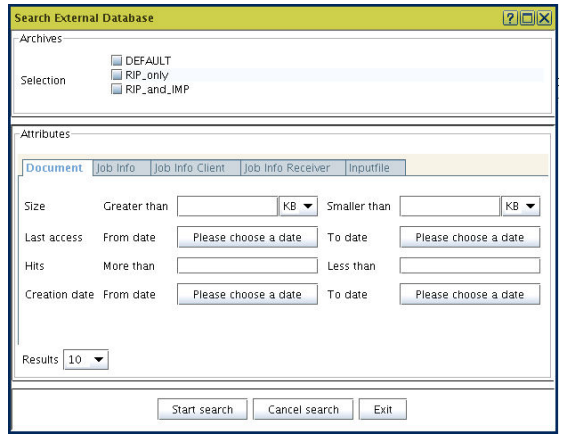
*Note:*
Documents that have been exported to an external medium remain in a PFL as links (marked as a file name followed by '@'), so it is possible to display the complete contents of a PFL without going via the external storage medium The origin of the exported documents is always also recorded on the external medium. Documents can only be imported back into their original location. It is also possible to delete or rename exported files without first placing them back in a PFL.

*Note:*
The exported data can then no longer be imported automatically.

**Menu Bar**

The menu bar contains the commands for running the PFM functions.

| | |
|---|---|
| 'Media' | The Media command enables you to choose which medium (as default output tape1 and tape2 are set) you want to transfer the data to. You can also export data to an external computer system, provided access to this system is configured under ’Configuration’ -> ’Master/Slave’.<br>When configuring media for the PFM via ’Configuration’ -> 'Devices' you have to use special keywords, which are offered in a drop down list, if you double click the respective field:<br>Under ’Type’: PFL_HOST or PFL_TAPE (computer or tape device)<br>Under ’Format’: PFL_TAR or PFL_CPIO<br>If you select PFL_HOST, you have to insert the hostname under ’Server’.<br>If you select PFL_TAPE, you have to insert the device under ’Physical device’ (for example: '/dev/sto'). |
| 'Options' | Use ’Options’ -> ’Search’ to search documents in the archive using defined search criteria. The following search dialog appears:<br>  |
| | As search pattern you can use regular expressions like .*, *,[A-Za-z]*, ... You can also combine these criteria by terms: _AND_, _OR_ or _ANOT_.<br>Additionally you can search documents of specified users.<br>If there is an external archive connected (see "Configuration of an External Database System" on page 339), you can use the ’Search extern’ entry in the ’Options’ menu. The dialog allows you to narrow down your search according to different aspects, which are presented on five tabs: |

| | |
|---|---|
| |  <br>'Document' tab<br>If you select this tab, you can search documents according to certain attributes like 'Size' ('Greater than', 'Smaller than'), 'Last access' ('From date', 'To date'), 'Hits' ('More than', 'Less than') and 'Creation date' ('From date', 'To date').<br>The number of 'Results' can be limited (up to 200).<br>'Job Info' tab<br>Under this tab you can specify 'Job name', 'Job queue', 'Printer name' and 'Printer type' of the jobs you are searching for.<br>'Job Info Receiver' tab<br>Under this tab you can specify information on the receiver as a search filter to find the desired jobs.<br>'Inputfile' tab<br>Under this tab you can specify attributes of the input file like 'Name', 'Format' (none, IOCA, PCL, TIFF, PDF-Unity, PS-Unity), 'ImpScheme' and 'ImpSetname'.<br>After you have selected the search criteria and after clicking the 'Start search' button, the search result is displayed in another dialog.<br>If the default settings on a tab have been modified, the caption of the tab turns red.<br>The output of the results is also influenced by the number of results you have specified and the 'File type' filter.<br>The results are displayed in lists of archives and documents. You can select single files to rename or delete them. |
| 'Help' | Help opens the PFM help system. |

**Tool Bar**

The toolbar contains buttons for each of the devices configured via 'Configuration' -> 'Devices'. Click a button, to select the device as current external media.

### Status Bar

The bottom section of the PFM window is a status bar used to display status information. When you make an entry in a field or select a device by clicking a toolbar button, the result of the action is shown here.

## Control Panel

The main section of the window is a panel in which the left side shows the contents of the local PFL, the center shows the copy/transfer functions and the right side shows the contents of the desired/required external medium.

### Documents in archive

The left section of the control panel consists of a standard file selection box and additional control elements. The file selection box displays the following elements retrieved from the local PC:

- A folder list that displays all the PFL's in the ODS network

- A document list that displays all the cached documents in the selected PFL

- A filter determining which documents are displayed.

You can select the documents you wish to export from the document list. If you move the mouse cursor on a linked document, a popup window will display the medium the document was exported to. You can select several files at once. To do this, select one file, then keep the left mouse button pressed and drag the pointer to the end of the set you want to select. Any links that you should happen to select are ignored. The window contains control buttons for deleting or renaming selected files. The listed documents are referenced by their names (job tickets). If the list contains several documents with the same name, each of the identical names is numbered.

### Exported documents

The right section of the control panel also consists of a standard file selection box and additional control elements. This file selection box displays the following elements retrieved from the external medium:

- A folder list that displays all archives on the external medium (only 1 tape device).

- A folder list that displays all documents in the selected archive.

- A filter determining which documents are displayed.

If your external medium is a host, you can organize the exported documents in folders (folder is a cpio/tar archive ). Use the create symbol to create a new folder.
If your external medium is a host, you can create new folders using the Create symbol.
Double-click a folder to display a list of the documents it contains.

*Note:*
If you have documents which are exported to a tape, you should stick a real label on the recorded tape so that you can identify the medium whenever you wish to import files.

You select documents you want to import to a PFL from the list. When you select documents, the system will check whether a link for this document exists in the PFL. If not, the selection will be rejected, just as it is rejected if the PFL does not exist in the ODS network. As with documents in a PFL, documents with identical names have a consecutive number appended to the end of their names to distinguish them.
You can delete empty folders using the Delete symbol.

**Buttons**

| Button | Description |
|---|---|
| | Rename a marked document in the archive. |
| | Delete selected documents. |
| | Select/Deselect all documents in the archive. |

**Export/Import**

Pressing the export button (right arrow) will export the documents selected in the document list to the desired medium
Pressing the import button (left arrow) will import the documents selected in the folder of the external medium into the PFL they were originally exported from.
The progress of the current task is indicated on the status bar:
Messages on the status bar log each of the processing sequences. This is particularly important for tasks that take a long time due to the length of the documents.

**Example**
When creating a list of the contents of a tape, the system will first create the table and then read the label information. There will be no visible changes on the screen in the period between the output of the list and the evaluation of the label file.
After an export or import operation, the system always updates the document lists: the link symbols are appended to or removed from the selected file names.

## Transferring Documents to a PFL

You transfer documents to the PFL via the Print Job Manager (PJM). Therefore you select the Store dialog in the Job Attributes section and select a predefined archive under 'In PFL' or 'As Preprint'.

## Format of External Media

External media are physical devices used for storing data (such as PCs, tape drives and CD recording systems). PFM currently supports only PCs and tapes. The origin of exported documents is always recorded on the external medium. Documents can only be imported back into their original folder.

| Component | Function |
|---|---|
| Tapes | Documents are archived on tapes in the form of cpio or tar archives. The origin information is contained in the directory structure within the archive file. Important: Tape cpio/tar archives cannot be extended. The rule is: one tape = one archive. |
| Hosts | Documents are archived on external host systems as cpio or tar archive in a predefined directory structure:<br>'/u/prismapro/archive/<host>/<folder>'<br>- '<host>': The name of the server to which the archive belongs<br>- '<folder>': The name of the external archive<br>- '<typ>': The archive type, cpio or tar<br><br>*Note:*<br>Extension of existing host archives is not supported in the current PFM version.<br>A folder can be reused or deleted, when all its documents have been reimported. |
| Devices | For more information refer to Devices. |

# 'Unity'

## 'Unity': Overview

### Introduction

This chapter describes what the POD-Module 'Unity' software product does and the purposes for which it can be used.

### Definition

'Unity' is a converter for PostScript and PDF documents (PDF: Portable Document Format). It converts the print data into AFPDS using IOCA's (Image Object Content Architecture). It runs as an integrated service under SUSE Linux and acts as a RIP (Raster Image Processor). The program is controlled by the POD-Module. As an add-on for the POD-Module, the 'Unity' makes it possible to relocate the task of converting print languages – which usually requires a lot of computing power – to a separate computer.
'Unity' is controlled in the POD-Module by way of the Print Job Manager. The Print Job Manager (PJM) interface is where you select your print file and begin the conversion. If the source format of your print file is PostScript 2, PostScript 3 or PDF, the UnityRIP Module can convert the data into IOCA format, which the printer can interpret.
This chapter helps you prepare for productive operation with the 'Unity'. It defines the requirements and describes the preliminary steps you have to perform before beginning work.

### UnityRIP Server

**Requirements for using the 'Unity'**
The conversion requires the following hardware and software:

- Operating system: SuSE Linux Enterprise Server 10
- Processor: Pentium IV processor or higher
- RAM: Minimum 1 GB RAM per instance. Recommended 2 GB
- Hard disk: At least 2 GB free disc space

**Deliverables**
The product package consists of the following components:

- PostScript 3 Converter
- PDF Converter fully capable of PDF 1.6
- 136 standard fonts (Adobe)

Optional:

- 8 Chinese fonts
- 12 Kanji fonts

*Note:*
To use the optional fonts (Kanji version) you need a separate license on the computer system on which you are running the 'Unity'.

## Installation

The 'Unity' is part of the installation package on the Océ PRISMAproduction Server DVD (see chapter "Océ PRISMAproduction Server Installation/Deinstallation/Update" in the Océ PRISMAproduction Server Administration Settings and Tasks Guide).

**Licensing**
The license for the 'Unity' is one of the POD-Module licenses which are managed on the Océ PRISMAproduction Server Master. For this reason, the license for the 'Unity' is automatically available when the 'Unity' is configured together with the POD-Module. However, if you add the license from the dongle for the 'Unity' to an existing system, you have to update the entries on the Océ PRISMAproduction Server Master using the 'Licenses' application of the Océ PRISMAproduction Server 'Explorer' (see *"Licenses"* on page 313).

*Note:*
The 'Unity' will run for a transitional period if the dongle or the dongle license is no longer valid. In this case, an error message with the code [ -11 / n ] appears every time the program is started. A positive value for the secondary error code indicates the number of days without a valid license; a negative value indicates a license violation.

# 'Unity': User Resources and Fonts

## Introduction

The default directory which is searched for resources is the installation directory 'u/prismapro/lib/unity'. But this directory is not accessible for the normal user for the installation of resources.
For this reason two additional directories will be searched for resources. Resources in the directory 'u/cust/resources/local/unity/global' are available for all users. In contrast to these resources the resources in the directory 'u/cust/resources/local/unity/<USER>' are only available for the user who is currently logged in. The user directory will be searched first and then the global directory. This results in the following order when searching resources from within the PostScript code:
First:' /u/prismapro/lib/unity'
Second: '/u/cust/resources/local/unity/<USER>'
Third: '/u/cust/resources/local/unity/global'

If different resource files are stored in the USER directory and in the global directory under the same name, the file from the USER directory is used.
You have to possibly create further subdirectories in this directory:

- Fonts:' /u/cust/resources/local/unity/<USER>/fonts'
- Resources: '/u/cust/resources/local/unity/<USER>/Resource'

***Attention:***
Directories and file names are case sensitive. This is especially critical if you are importing files from other systems, for example Windows!

## Example 1

A PostScript job of the user 'operator' requires the image file 'logo.tif':

'%!PS-Adobe-3.0 '
'(logo.tif) GetTiff '
'showpage'

Therefore the file 'logo.tif' has to be stored in the directory' /u/cust/resources/local/unity/operator' to finish the conversion without errors.

## Example 2

A PostScript job of the user 'operator' requires the image file '/var/lib/images/logo.tif':
'%!PS-Adobe-3.0'
'(/var/lib/images/logo.tif) GetTiff '
'showpage'
Because of the absolute path statement the file 'logo.tif' will only be searched for in the directory '/var/lib/images' and not in '/u/cust/resources/local/unity/operator'.

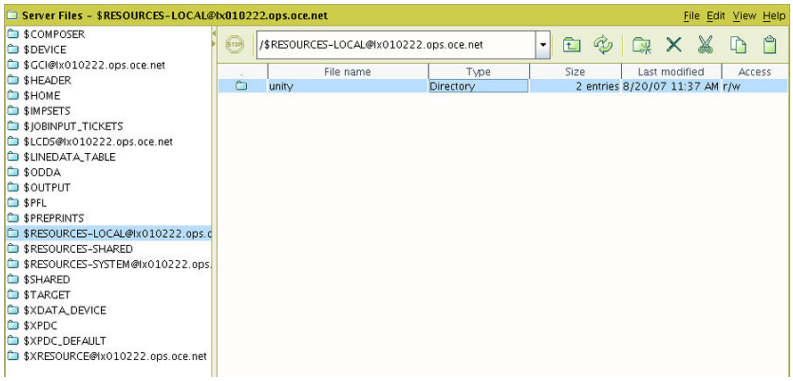
## Example 3

A PostScript job of the user 'admin' requires the image files 'var/lib/images/image0001.tif' to 'var/lib/images/image1000.tif'. The files are automatically stored in the '/var/lib/images' directory.

'%!PS-Adobe-3.0 '
'(var/lib/images/image0001.tif) GetTiff '
'showpage '
'(var/lib/images/image0002.tif) GetTiff '
'showpage ... '
'(var/lib/images/image1000.tif) GetTiff '
'showpage'

Linux command: 'ln -s /var /u/cust/resources/local/unity/admin/var'

You can use the Océ PRISMAproduction Server Explorer to import resources into the Océ PRISMAproduction Server system and to distribute the resources to other computers in the Océ PRISMAproduction Server network:




The computers of the Océ PRISMAproduction Server network appear in the 'Server Files' application in the Océ PRISMAproduction Server Explorer ($RESOURCES@<server-name>). You can use the copy and paste function to copy and move resources.

## Fonts

Print files may or may not include fonts. Courier is used by default if no fonts are provided. The following 136 industry-compatible Adobe fonts are provided in the 'Unity':

| | | |
|---|---|---|
| AdobeSansMM | GENEVA | MonaLisa-Recut |
| AdobeSerifMM | GillSans-Bold | NewCenturySchlbk-Bold |
| AlbertusMT-Italic | GillSans-BoldCondensed | NewCenturySchlbk-BoldItalic |
| AlbertusMT-Light | GillSans-BoldItalic | NewCenturySchlbk-Italic |
| AlbertusMT | GillSans-Condensed | NewCenturySchlbk-Roman |
| AntiqueOlive-Bold | GillSans-ExtraBold | NEWYORK |
| AntiqueOlive-Compact | GillSans-Italic | Optima-Bold |
| AntiqueOlive-Italic | GillSans-Light | Optima-BoldItalic |
| AntiqueOlive-Roman | GillSans-LightItalic | Optima-Italic |
| Apple-Chancery | GILLSANS | OPTIMA |
| Arial-BoldItalicMT | Goudy-Bold | OXFORD |
| Arial-BoldMT | Goudy-BoldItalic | Palatino-Bold |
| Arial-ItalicMT | Goudy-ExtraBold | Palatino-BoldItalic |
| ARIALMT | Goudy-Italic | Palatino-Italic |
| AvantGarde-Book | GOUDY | Palatino-Roman |
| AvantGarde-BookOblique | Helvetica-Bold | StempelGaramond-Bold |
| AvantGarde-Demi | Helvetica-BoldOblique | StempelGaramond-BoldItalic |
| AvantGarde-DemiOblique | Helvetica-Condensed-Bold | StempelGaramond-Italic |
| Bodoni-Bold | Helvetica-Condensed-BoldObl | StempelGaramond-Roman |
| Bodoni-BoldItalic | Helvetica-Condensed-Oblique | SYMBOL |
| Bodoni-Italic | Helvetica-Condensed | TEKTON |
| Bodoni-Poster | Helvetica-Narrow-Bold | Times-Bold |
| Bodoni-PosterCompressed | Helvetica-Narrow-BoldOblique | Times-BoldItalic |
| BODONI | Helvetica-Narrow-Oblique | Times-Italic |

| | | |
|---|---|---|
| Bookman-Demi | Helvetica-Narrow | Times-Roman |
| Bookman-DemiItalic | Helvetica-Oblique | TimesNewRomanPS-BoldItalicMT |
| Bookman-Light | Helvetica | TimesNewRomanPS-BoldMT |
| Bookman-LightItalic | HoeflerText-Black | TimesNewRomanPS-ItalicMT |
| CARTA | HoeflerText-BlackItalic | TimesNewRomanPSMT |
| CHICAGO | HoeflerText-Italic | Univers-Bold |
| Clarendon-Bold | HoeflerText-Ornaments | Univers-BoldExt |
| Clarendon-Light | HoeflerText-Regular | Univers-BoldExtObl |
| Clarendon | JoannaMT-Bold | Univers-BoldOblique |
| CooperBlack-Italic | JoannaMT-BoldItalic | Univers-Condensed |
| CooperBlack | JoannaMT-Italic | Univers-CondensedBold |
| Copperplate-ThirtyThreeBC | JOANNAMT | Univers-CondensedBoldOblique |
| Copperplate-ThirtyTwoBC | LetterGothic-Bold | Univers-CondensedOblique |
| Coronet-Regular | LetterGothic-BoldSlanted | Univers-Extended |
| Courier-Bold | LetterGothic-Slanted | Univers-ExtendedObl |
| Courier-BoldOblique | LetterGothic | Univers-Light |
| Courier-Oblique | LubalinGraph-Book | Univers-LightOblique |
| COURIER | LubalinGraph-BookOblique | Univers-Oblique |
| Eurostile-Bold | LubalinGraph-Demi | UNIVERS |
| Eurostile-BoldExtendedTwo | LubalinGraph-DemiOblique | Wingdings-Regular |
| Eurostile-ExtendedTwo | MARIGOLD | ZapfChancery-MediumItalic |
| Eurostile | MONACO | ZapfDingbats |

### Installation of additional Type 1 fonts

Additional Type 1 fonts can be installed on the local hard disk of the conversion computer. The font files must be in the folder named 'fonts' relative to the search path of the converter (see chapter 'User resources' above).
The installation of fonts on the hard disk is supported by the shell scripts pfb2font and pfa2font. The shell script pfb2font converts fonts in binary format to ASCII. The shell

script pfa2font replaces the file name of fonts in the ASCII format (*.pfa) with their font name.
The following procedure is recommended to install additional type 1 fonts:

- Create a temporary font directory:
  '# mkdir $HOME/fonts'
- Copy font files to the font directory:
  '# cp testfont.pfb $HOME/fonts'
  '# cp testfont.pfa $HOME/fonts'
- Change to the font directory:
  '# cd $HOME/fonts'
- Convert the fonts:
  for binary font files (*.pfb):
  '# pfb2font'
  for ascii font files (*pfa):
  '# pfa2font'
- Copy fonts into the user resource directory and link fonts
  '# ln -s $HOME/fonts /u/cust/resources/local/unity/<USER>/fonts'

For step 5 the corresponding rights have to be set. If the link already exists, you don't need step 5.

**Installation of additional TrueType Fonts**

Like Type 1 fonts you can also install TrueType fonts locally. The fonts have to be copied (or linked) to the respective font directory.

The following directories are available:

- for fonts, which are general available: '/u/cust/resources/local/unity/global/fonts'
- for user specific fonts: '/u/cust/resources/local/unity/<USER>/fonts'

After copying the fonts to the correct directory, the file name of each font has to be adjusted to the font name, which is referenced in the PostScript or PDF file.
If you are not sure of these names, you can try to generate the file with all referenced TrueType fonts an then convert the file with the "Replace missing fonts" option disabled. This job will finally generate an error message, which lists all font names, which could not be found.

**Installation of additional Kanji fonts**

Additional Kanji fonts can be installed by a font installation procedure from a Macintosh computer via the AppleTalk protocol to the local hard disk. This is currently only possible with an 'Unity' installed on Windows.

# 'Unity': Customizing for Specific Applications

## Notes on Running Fanfold Printers

The page length is entered on fanfold printers in increments of 1/6". Consider that the page length set on the printer must always be at least as large as the output size of the file, since otherwise PEMs (Print Error Marks) will be printed.

**Example**: The page length on the printer is 11 4/6" (= 29.63 cm), but the file output size is A4 (= 29.7 cm). This means PEMs will be printed. You can prevent PEMs from being printed by setting the size in the output file to the value set for the paper format on the printer (paper format variable with page length 11 4/6").

## Control Input Tray Switching via PS file with 'setpagedevice' operator

The 'setpagedevice' command has been introduced with PostScript Level 2 and is currently the standard for input tray switching by specifying certain media attributes.

**Example**:

'<<'

'/PageSize [ 595 841 ] '

'/MediaType (Standard)'

'/MediaColor (Pink)'

'/MediaWeight 100'

'>> setpagedevice'

Supported attributes are:

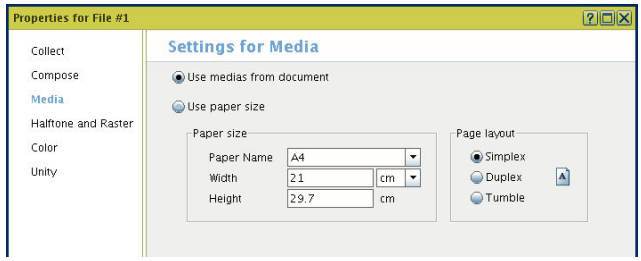
**PageSize** (array of two real or integer numbers)

**MediaType** (case sensitive string)

**MediaColor** (case sensitive string)

**MediaWeight** (real or integer number)

To use this feature you have to select 'Use medias from document' in the PJM under 'Media' in the file properties.




Every different media will be assigned internally to a specific tray. This tray assignment can be changed later on when the job is to be printed.

## Control Tray Switching via PS file with 'setpapertray' operator

The 'setpapertray' command has been used for inputtray switching in PostScript Level 1 but has been replaced with the 'setpagedevice' command since PostScript Level 2 and should not be used anymore.

Internally the 'setpapertray' command will be mapped to a 'setpagedevice' command using the default pagesize as /PageSize and /MediaType as tray identifier.

**Example** for changing to the second input tray:

The old command:

'statusdict begin 2 setpapertray end'

is replaced by:

'<< /PageSize [ 595 841 ] /MediaType (tray2) >> setpagedevice'

Here up to 9 trays are supported.

To use this feature you have to select 'Use medias from document' on the 'Media' tab in the PJM File Properties window for POD files.

The effective tray assignment can still be changed later on when the job is to be printed.

See also *'Workflow Extended AIMS Concept'* on page 91.

# 'Unity': Color Separation

## Introduction

Basically color spaces are separated due to the way of their usage. Conventional printing methods (i.e. Offset) mainly use CMYK (Cyan, Magenta, Yellow, Kontrast/Black), CMY and La*b*. RGB (Red, Green, Blue) color space is most suitable for display with electronic devices (i.e. TV, Computer displays, beamers, ...).

*Note:*
**RGB = additive dithering**: R,G and B result in white when overlaid. **CMYK = subtractive dithering**: C, M, Y and K result in black when overprinted. Each printing color therefore substrates part of the light reflectance until the paper white disappears.

Nowadays print data are mainly created digitally. This implies a particular problem. The data are displayed on the screen for modification using the RGB method. But for printing you need colors on the CMYK basis. Therefore the data have to be transformed from one color scheme to the other. If for example the data are stored and handed on in the PDF format, they are usually optimized for display on the screen and the colors used are described using the RGB color scheme. Black for example is composed of the color components R=0, G=0 and B=0, White results from the values R=255, G=255 and B=255. CMYK Black on the other hand consists of intensity values C=0%, M=0%, Y=0% and K=100% (K=Kontrast).
A conversion from RGB colors to CMYK colors has the effect, that e.g. RGB Black is represented by the values C=75%, M=68%, Y =67% and K=90% in the CMYK color scheme, not as exexpectedspected in C=0, M=0, Y=0 and K=100%. Furthermore the conversion is not lossless. You can only correct this loss if you use elaborate color management and rendering tools.
In many cases knowledge on the correct use of color spaces is missing. This leads to the fact that many different data have to be processed in the workflow of a print site or a service provider. These data often have to be adjusted and modified for special applications. This is especially true for color separation of documents to Custom Tone or Black.

## Functionality of Color Separation with UnityRIP

Every page of the document is ripped line by line (line=scanline; hight=1 output pixel; width=width of page). Thus every pixel is checked for its color value. Depending on the options settings data streams for the single colors are created. As options you define parameters, which control the selection of colors by the RIP.

## Layout of PS and PDF Documents to enable Color Separation

Only the most important and common settings are discussed below.

### Pure colors

The easiest selection is posible with pure colors, because the color component, which should be separated in a document, can be uniquely assigned a primary color value. Therefore a direct extraction is possible:

| Color mode | Description |
|---|---|
| RGB | Allows the selection of Red, Green or Blue. |
| CMY(K) | Allows the selection of Cyan, Magenta or Yellow. |
| sRGB | With sRBG (standardized RGB) the RIP converts the colors using a special color rendering profile, which creates a single numeric value for the color impression simulated by the RGB scheme. Then the separation algorithm is applied to the scanlines. |

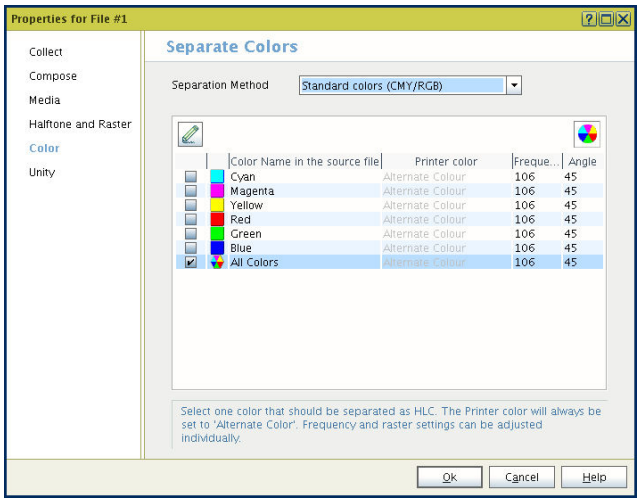
Prerequisites:

- To ensure a safe and simple color separation the usage of documents (PS and PDF) containing colors in different color spaces should be avoided.
- Applies to colored logos, images and fonts: use only one component for all elements for creation and display of the color information to be extracted (the color to be printed is not relevant in this case). It is only important that all elements are of the same color tone and color type.
- You should know the color to be separated. To find out a desired color you have to use third party products like Enfocus PitStop.

Advantages:

- Easy handling, because color information can be identified and separated uniquely.
- Easy creation of the raw data, because you always work in the same color space.
- Low error rate and few error runs.

The separation of pure colors can be selected in the POD file properties in the PJM (see the description of the POD File Properties -> 'Standard Colors' in the POD User's Guide).




### Mixed colors

Mixed colors are used in many documents. Such a color can be for example RGB orange of the following values: R=255, G=230, and B=150.

| Color mode | Description |
|---|---|
| RGB +/- x | If you want to use this color for separation and you also want to separate similar colored pixels next to this color, it is advisable to indicate an additional range of values, in which the colors to be considered for separation are located.<br>The following illustration shows an RGB color scheme, a selected dot at R=255, G=230 and B=150 and a circle around this dot. This circle indicates the position of the neighboring similar color values, which are located in the tolerance zone indicated:<br> |

| Color mode | Description |
|---|---|
| sRGB | sRGB colors are treated as pure colors, because only one channel (R, G, or B) exists for the internal conversion based on the standardized color rendering profile. In this case no color range can be defined. If you create PDFs using Adobe Distiller, make sure that in 'Settings' -> 'Job Options' -> 'Color' -> Working Spaces' -> 'RGB' the sRGB IEC61966-2.1 profil is not selected. Choose instead: Adobe RGB (1998).<br><br>*Note:*<br>The sRGB IEC61966-2.1 profile is set as default profile in Adobe Distiller for RGB color work spaces and is optimized for display on various screens. This profile is not very suitible for color separation with UntityRIP. |
| CMYK | Selection of a range is not provided in this case. Therefore the whole color range of the color channel (C, M or Y) will be separated. This leads to an output of all shades of the selected channel on the color form. Bear in mind that in some cases the yellow separation contains more information as for example the cyan separation. Therefore only if all four separations (CMYK) are printed one over the other, the image is complete. A separation on its own only contains components relevant for this color. Separating images in only two colors therefore leads to falsifications and alienations of the contents of the image. |

**Example**

In this example you can see very clearly, that the yellow separation contains most of the image information. If you print this separation with a darker CustomTone and Black, the complete image may appear to be too dark.

| Example image | Color separation |
|---|---|
| | Default |
| | Cyan |
| | Magenta |
| | Yellow |

| Example image | Color separation |
|---|---|
| | Black |

Fonts and graphics are usually not affected, because they are mainly created using pure colors.

Prerequisites:

- All colors needed should be created in one single color space, i.e. CMYK. The use of more than one color space in one document makes separation extremely difficult.

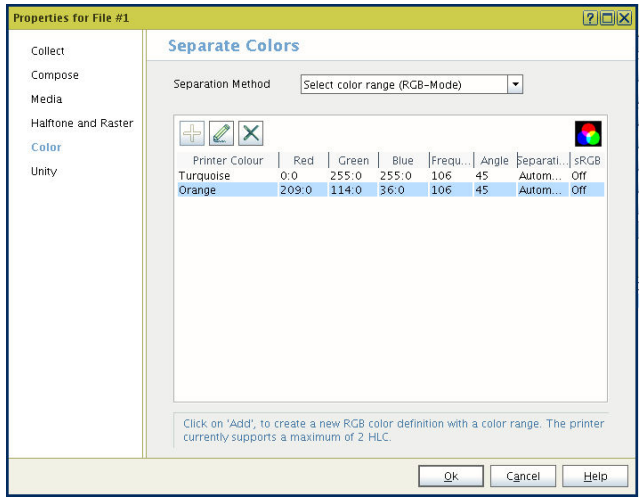
Advantages:

- Targeted and simple separation of color channels.
- All color shadings within a separation will be reproduced correctly.
- No knowledge of single color values is necessary.

Problems:

- Single color separations represent only a part of the entire image. Consequently images differ from the original. According to the separation you choose, the image appears to be more bright or dark.
- Graphics (like pie charts with different color shades) are not separated as intended, if they are composed of different pure colors and are separated to one of these.
- Single color separations cannot be clearly created from documents containing color components in different color spaces. This is because for example an RGB Red doesn't exactly match with CMYK Red, even if there is no difference on the screen.

To separate color ranges (RGB) you have to select the respective function in the POD file properties in the PJM (see the description of the POD File Properties -> 'Select color range (RGB-Mode)' in the POD User's Guide).




## Color Names

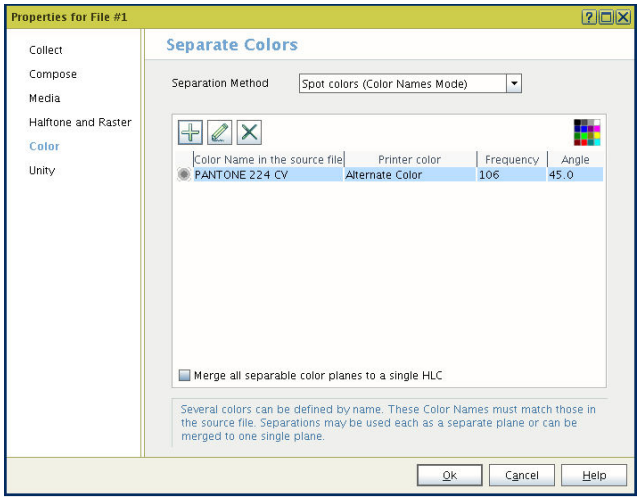
A common way to add color to documents, is the usage of color names. These color mixing systems are provided as color sequences, color palettes or color guides. Known color guides are e.g. PANTONE, HKS, FOCOLTONE, TOYO, TRUEMATCH and more... In addition to the predefined colors, many illustration programs offer the possibility to create you own company specific colors and to identify them by an alias name. Using these color definitions simplifies the complete workflow for the graphic designer.

For the separation it is sufficient to communicate this name to the RIP. The system then identifies the appropriate parts of the color and extracts these as color separation. Here also applies the so called "In-Rip separation".

If the documents have been built up consequently with spot colors, the separation is quite easy.

You can also use the standard process color names "Cyan", "Magenta" and "Yellow" (spelled exactly this way). In comparison , spot colors have the advantage, that all color shadings are only defined in the spot color itself and therefore no interferences with ’neighbor colors’ are to be expected.

To separate named colors you have to select the respective function in the POD file properties in the PJM (see the description of the POD File Properties -> 'Spot Colors (Color Names Mode)' in the POD User's Guide).


Properties for File #1
Collect
Compose
Media
Halftone and Raster
Color
Unity
Separate Colors
Separation Method
Spot colors (Color Names Mode)
Color Name in the source file
Printer color
Frequency
Angle
PANTONE 224 CV
Alternate Color
106
45.0
Merge all separable color planes to a single HLC
Several colors can be defined by name. These Color Names must match those in the source file. Separations may be used each as a separate plane or can be merged to one single plane.
Ok
Cancel
Help

# Workflow Extended AIMS Concept

## Introduction

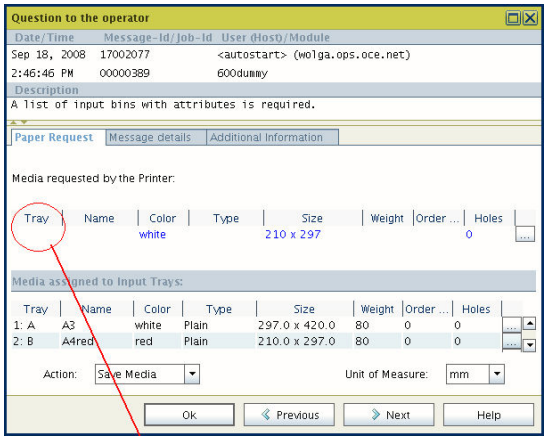
With the Océ PRISMAproduction Server version 3.02.18 a new extended 'Attribute based Input Media Selection' is introduced. This concept helps to overcome the following restrictions with the Océ VarioPrint printers:

- Color and mediatypes are predefined on the printer. Custom defined names for color and media types are not possible.
- Tab / Ordered Material restrictions.

With this extended AIMS concept, settings, which before you had to perform on the printer itself, are now performed on the Océ PRISMAproduction Server server.
Printer hardware related functions like clustering and tab printing must also be defined on the printer itself.
With this concept, it is also possible to run "pure" input bin number oriented printers like Océ Pagestream 75/55 or "only" medianame oriented printers like the Océ Pagestream 156 via IPDS.

## Workflow

- In the 'Configuration' -> 'Paper' application you may define the media types with all respective attributes. You can enter any paper color you want (for example sky blue or blossom white). If you click on 'Media Settings ...' in the 'Printer Pool' application (tool bar icon or menu entry) you can configure a printer specific mapping table for the selected printer using the predefined paper names.
- Media attributes, defined in PostScript or DigiPath documents are preserved by the 'Unity' / 'DPconnect' / Professional Document Composer and preserved / incorporated in the AFP data, which are spooled in the Océ PRISMAproduction Server spool.
- During printing, the IPDS backend scans the APF data for required media and compares the required media with the media already loaded on the printer. This loading is represented by the mapping table, you have created for the printer on the Océ PRISMAproduction Server system. This table is obviously empty after installation or new definition of a logical printer.
- If the backend finds the required material in this mapping table, the respective tray number is invoked via IPDS.
- If the required paper is not found in the mapping table, the required attributes are displayed in a message window (see below), the operator loads the paper in one of the input bins of the printer and defines/documents this in this message window. This is done by simply choosing the input bin for the required paper. No retyping of the attributes is necessary.




Operator has to assign the correct input tray, where the requested input media is loaded.

*Note:*
Mapping table is empty (or deleted) during installation and restore of backup. (During restore of a backup the actual paper-loading of the printer must not be restored).

# 'Unity': Enhanced Functionality

Since all relevant information concerning input media and finishing requirements are concealed within the PostScript data stream, the 'Unity' has been enhanced to translate PostScript finishing commands into corresponding AFPDS commands.

The UP3I extension to AFPDS (MFC) has been chosen to function as a common interface to the adjacent backend modules (IPDS-, ps- and xrx-backend).

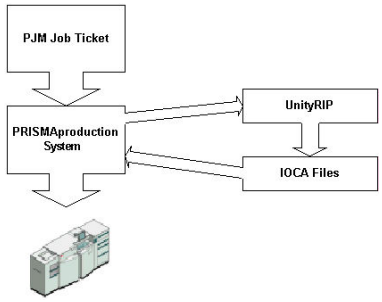
If this functionality is used, the subsequent use of the Professional Document Composer may discard all added information by the 'Unity'.

In general the 'Unity' generates portrait afpds pages no matter whether the input media selection specifies landscape or portrait. The 'Unity' is not a cropping tool though it may sometimes work if you specify a smaller page size than the original PS/PDF document requires. The origin of the page is the lower left corner.

# 'Unity': Conversion

## Workflow

You control the workflow and define conversion parameters via the Océ PRISMAproduction Server Print Job Manager. This creates a job ticket on the basis of the settings you specify and sends the ticket to the Océ PRISMAproduction Server Master. The master then directs the distribution of the work packages, sends instructions to programs and monitors all the stages in job handling. This is done in a way that maximizes the data throughput and distributes the workload evenly across the ODS network.




## Creating a conversion job with the Print Job Manager

Using the folder icon, select a PostScript or PDF file and add it to the list of files. Select the file you have just added to the list, then select PS-Unity or PDF-Unity in the Format list box. the 'Unity' then performs the conversion. Once the conversion is complete, continue as you would for any other format (see description of the Print Job Manager).

## Creating PostScript and PDF print files

The Océ PRISMAproduction Server DVD also contains the installation files for the Adobeps5 PostScript driver and the product specific PPD (PostScript Printer Definition) files. This driver and these PPDs should be used exclusively for creating PostScript and PDF files. This is the only way to guarantee that only those function calls are generated which can be processed by the 'Unity' Software.

# 'Unity': Troubleshooting

If the conversion job is not completed properly, you must find out the reason why and correct the problem.
To identify problems, you will need to know a little more about how the Océ PRISMAproduction Server master and the 'Unity' work together:
The ODS master sends the file to be converted, plus the job ticket, to the 'Unity'. The 'Unity' reports the status of the job back to the Océ PRISMAproduction Server master at regular intervals (for example it might notify the Océ PRISMAproduction Server master that the job is "in progress"). When the conversion is completed without any errors, it sends back the converted file. In the event of an error, the 'Unity' reports the status "completed with errors" plus a return code indicating the type of problem.
The 'Unity' also keeps two files of its own in the installation folder to log the progress of conversions.

# 'Unity': Unity Plus (Graphic Arts_Plus)

## Introduction

"Multilevel Gray" represents a new method, developed by Océ, to significantly enhance the print quality especially with images. As indicated by the name, this technique uses grayscales, which can have different shades in one pixel. This leads to a smoother and more homogeneous printout of the images. In contrast to the usual RIP method, the images are not anymore converted to a simple black and white raster (2 bit color depth). You need the image information with a color depth of 8 bit per color channel.

In a standard prepress RIP process this would lead to a amount of data, which cannot be sent to the printer with the required performance. Therefore the raster process is moved directly into the printer. On the one hand side transfer time is saved, on the other hand the decompression of the data in the controller is not necessary anymore. The ripped output data are transferred to the IO modules immediately.

The basic element of the workflow is providing the print data in a "composite" (not rastered) format. Therefore object containers are used, which allow to transport any contents. In this special case, the contents are PDF pages, which are sent to the printer, embedded in such a container.

## Requirements

The following components are needed to enable the "Graphic Arts" workflow:

- Graphic Arts_Plus license
- Océ PRISMAproduction Server
- One ObjectContainer license per printer

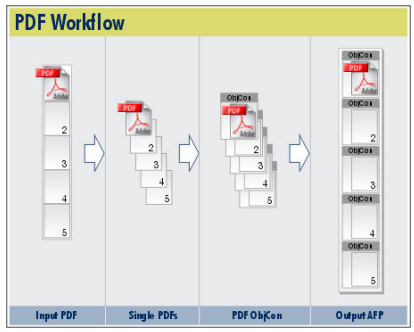
## PDF Workflow

*Note:*
During this process the incoming PDF file is neither checked nor any preflights are done. Such tasks should be performed before submission of the PDF file to the Océ PRISMAproduction Server system.

Working with ObjectContainers assumes that only one document page is used per container. Therefore multipage PDF files have to be separated into single pages, which are then sequentially supplied with an ObjectContainer frame and sent to the printer.

**Procedure**

In the PJM select 'PDF-Unity+' or 'PS-Unity+' as input data format to adjust the converter options. When generating the print job, the PDF file will be separated into single page PDFs in the first place. Each page is then packed into an ObjectContainer. From these containers an AFP data stream is created. Afterwards you can apply different operations to this AFP file (for example with the PDC). The printer has a RIP integrated, which extracts single PDF pages from the incoming AFPs and converts them into bitmaps. These are then processed directly in the printer without further manipulation (for example compression).



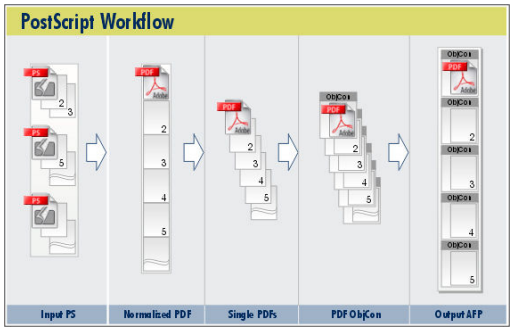

*Note:*
If you convert PDF files which contain so called forms (references to always equal page contents), the total of the single pages may require much more memory than the original. Also embedding fonts in the single page PDF file enlarges the file size. The resulting AFP files are accordingly big.

## PostScript Workflow

Many of the PostScript data on the market are not created according to the DSC rules (Document Structuring Convention by Adobe). Therefore these data are not page independant and can therefore not be used in ObjectContainers.
A simple solution for this problem is to convert the PS into PDF. The following steps are the same as for the PDF workflow described above. This means, the PostScript data are 'normalized' via the conversion into PDF and are then processed with the known PDF workflow which generates AFP with ObjectContainers.

*Note:*
Programming with PostScript makes it possible to create a vast variety of complex print applications. Many of the resulting advantages and features cannot be realized anymore after the conversion to PDF. For example proprietary print parameters like stapling or stitching are not interpreted. Loop programming and the usage of forms or similar resources may also lead to large PDF files (see note for the PDF workflow).

The PDF workflow needs an additional conversion of PostScript into PDF. All further steps are the same as for the PDF worklflow:




[48]

## GraphicArts Workflow Limitations

The main advantage of the GraphicArts workflow is that the native PDL (PDF) will be kept until the RIP process at the chosen printer begins. By that the print quality can be optimized and specific printer features can be used like deciding at the time of print whether you want the output to be in black and white or in highlight color.

**Possible increase in file size**

To be able to use the same POD components like the Professional Document Composer and make use of multiple RIP instances in the printer, it is necessary to create independent single page objects out of an PS/PDF datastream or file. By doing this, all resources like fonts or forms, which all or multiple pages share among each other, have to be added to every single page object. Therefore the resulting ‘normalized’ AFPDS data may become a multiple of the size of the original input file. This effect can also be seen if you use the “extract pages to single pages” feature with Acrobat Professional.

**Pages may not print**

During the conversion process of creating independent PDF objects for every printable page the contents of the source file itself is not checked. Some errors show up only during the ripping process even if the file can be viewed without a problem. The reason for this is that a viewer is much less restrictive than a RIP respectively a printer. Therefore it may happen that problems can only be seen during the printing process.

**Only viewable with TrueProof**

To view the printfile before actually printing it, TrueProof is required together with a license to enable the GraphicArts feature of ripping PS/PDF objects.

**Use of PDF security features**

As part of the GA workflow the incoming PDF files will be split up into single page PDF sections. Therefore the PDF files must not have the security feature enabled that prohibits the modification and/or print of the document.

# 'Unity': 'GetTiff-Service' Integration

## Definition

If a valid license has been installed on the system, the 'GetTiff-Service' extension can be enabled in the 'Unity' tab of the file properties dialog of the PJM.
Without the GetTiff option enabled, the referenced TIFF file will be read and rasterized during the rip process. Because images cannot be cached in the 'Unity', even the same image being called several times within the PostScript source file has to be read and rastered new. Typically this functionality is used in conjunction with PostScript forms using a defined set of TIFF images as forms and being used multiple times within a document.
With the 'GetTiff-Service' option enabled, the macro will record every call for every TIFF image into a separate file, together with position and scaling information and inhibit the further processing in the 'Unity'. Thus a AFPDS document is generated that misses the contents of those TIFF files.
In a second step the reference file is read and the TIFF files will be converted into IOCA resources within a new AFPDS file. Next this file will be merged with the AFPDS file previously generated by the 'Unity'. This is done together with include commands at those places in the file being captured in the reference file list. This will minimize the rendering efforts of the 'Unity' and optimize the resulting AFPDS file by reusing common TIFF objects as resources .

## Requirements

"GTS" has the following requirements:

- Unity_RIPR 4.0 license
- Unity_GTS_Extension 4.0 license

To use this feature, the PostScript source file has to use a GetTiff macro with a file name as input parameter to the macro. For example: (StandardLetter.tif) GetTiff.

# Jobrequirement

## Jobrequirement Functional Module

### Introduction

The **jobrequirement** functional module has been designed to better meet requests coming from printroom environments, in particular to enable a printroom manager to route jobs to suitable printers.

### Definition

The basic task of the **jobrequirement** module is to scan a POD print job for its requirements, which have do be fulfilled by the printer this job will be printed on. Therefore **jobrequirement** may be integrated as an additional Océ PRISMAproduction Server workflow step in the usual Océ PRISMAproduction Server workflow. The location of this workflow step is immediately before the print step.
When a job has been scanned, the respective job entry in the **All Jobs** view in the Océ PRISMAproduction Server Explorer obtains an info icon ( ) indicating that additional information for this job is available. A double click on this job opens a popup window showing detailed information regarding requirements for the destination printer.

**Jobrequirement** does not affect print job data and print results in any way.

### Using jobrequirement

The jobrequirement function can be used either via an LP input queue (see *"LP"* on page 508), via the Vario PJM application and via the PJM itself (menu 'Job' -> 'Determine Requirements').
Integrating the additional jobrequirement workflow step into the workflow of a job is accomplished by a suitable job ticket. If jobs are received with an LP input queue, the associated job ticket template has to be prepared respectively.
The jobrequirement installation package provides two additional job ticket templates which are put in place when installing Océ PRISMAproduction Server:

- .JOBREQUIREMENT.TIC
- JOBREQUIREMENT.TIC

Both ticket templates are prepared in order to invoke the jobrequirement step with a parameter set (see 'Controlling jobrequirement information output' on page 61) suitable for most of the use cases. The first one cannot be changed, it works just as a factory default. The second one is identical to the first one and may be changed according to your own

needs. You may use the PJM to do all the changes necessary for your task. You find the templates in the usual symbolic $JOBINPUT_TICKETS folder.

When setting up an LP input queue you may assign one of the ticket templates in $JOBINPUT_TICKETS to an LP input queue by selecting the appropriate one with the combo box in the 'Selected Profile' line.
The JOBREQUIREMENT.TIC template may be used for LP input queues submitting jobs by **pjm** as well as by **startdpconnect**.

**Detailed workflow of Job Routing using the jobrequirement function:**

- Océ PRISMAproduction Server processes print jobs as usual, but does not specify a physical destination printer.
- The **jobrequirement** function detects the requirements of the job, which are necessary to decide, which of the attached destination printers are able to print this job. After this the print job is held in the Océ PRISMAproduction Server spool.
- The detected job requirements are now visible for the operator or printroom manager.
- The printroom manager selects the job in the 'All Jobs' view and accepts the job requirements. Due to his knowledge of the capabilities of the attached destination printers, he selects the suitable physical printer.
- The printroom manager changes the print job properties in order to set the physical destination printer.
- The destination printer, which has been specified before, has to be activated earlier, so the print job now automatically continues and is printed.

Océ PRISMAproduction Server does not allow to start a print job without having specified a destination printer. So in cases like this, where the concrete destination printer becomes known only while processing the job, you have to specify the name of a virtual printer, which acts as a placeholder.
The job ticket templates .JOBREQUIREMENT.TIC and JOBREQUIREMENT.TIC shipped with the jobrequirement installation package include such a placeholder printer name: This name is "SelectPrinter". So you have to establish a virtual printer with this name in your Océ PRISMAproduction Server system. This printer has no physical representation. This printer must not be activated. If it is activated, the printroom manager has no possibility to reroute the job to another real destination printer, because the system would immediately try to print the job on the virtual printer - which would fail.
In order to avoid the possibility of activating this printer by mistake it is recommended to use the printer pool filter mechanism to eliminate this printer from the printer pool view.

**Print Resolution**

The Océ PRISMAproduction Server printer configuration requires specification of the printer resolution. So specifying a destination printer for a print job implicitly specifies also the resolution of the resulting print data. The Océ PRISMAproduction Server system

instructs the required data stream converter (PostScript-, PDF- or PCL-RIP) to apply the resolution of the destination printer while ripping.
If there are printers attached to the Océ PRISMAproduction Server system with different print resolutions and you want them to be used in conjunction with jobrequirement, you have to establish different virtual printers configured with different print resolutions. Doing so enables you to let the RIP generate the print data in the correct resolution by selecting the virtual printer with the appropriate print resolution.
Printers with multi resolution capabilities (MRM) will lead to print data ripped for 600 dpi.

**DPconnect specific**

DPconnect does its own check for printer postprocessing requirements. If the selected destination printer for DPconnect jobs does not meet these printer postprocessing requirements, then DPconnect will omit these requirements or will stop the print job - according to the DPconnect settings.
In order to make all DPconnect jobs pass the workflow and take advantage of jobrequirement, the virtual destination printer "SelectPrinter" has to be set up in such a way that it covers all possibly occurring printer postprocessing requirements. In fact this should be a superset of the postprocessing capabilities of all real destination printers attached to your Océ PRISMAproduction Server system.

## Manual Ticket Parameter Setup

Upgrading a normal job ticket with a jobrequirement step requires the following:

- Open the job ticket file with an ASCII editor. The folder where you find it is '/u/prismapro/cfg/jobinput/ticket'
- Add a new ticket section named jobrequirement. This has to be done in a separate line, the section name has to be enclosed with [].
  '[jobrequirement]'
- After the section line insert the line:
  ' _Service=jobrequirement'
- Put all the jobrequirement parameters after the service line and set their values as you need them.
- Search for the [job] section and insert somewhere in the job section the line:
  'Pre_Print_Steps=jobrequirement'
- Close and save the job ticket file.

## Controlling jobrequirement information output

The job ticket section [jobrequirement] contains a set of parameters which control both the amount of information and for some information also its appearance in the popup window. Parameters are (Default values are **bold**):

- **outputInJobView=yes**/no
  Show all job requirement information in the All Jobs view.
- **outputInMessageView=**yes/**no**
  Show all job requirement information as an information message in the Messages window.
- **showMediaRequirements=yes**/no
  If the following input media attributes are requested, they will be displayed:
  Medium color name
  Medium type name
  Medium set size
  Medium format
  Medium weight
  Medium predrilled hole count
- **showUP3IMediaNames=yes**/no
  If a UP3I coded medium name is requested, this name will be displayed.
- **showAFPMediaNames=**yes/**no**
  If an AFP coded medium name is requested, this name will be displayed.
- **showContainerType=**yes/**no**
  Shows the type of page content (e.g. image, PDF-container,...).
- **showTrays=yes**/no
  If an output tray is requested AND there is no printer postprocessing request, the output tray number will be displayed.
- **showPPPRequirements=yes**/no
  If the following printer postprocessing details are requested, they will be displayed:
  Device name
  Operation name
  Reference edge / Reference corner
- **showHighlightColorRequirements=yes**/no
  If the print data of a job requires any other than the default color (in AFP terms) all of these colors will be displayed in a list.
- **routing=**yes/**no**
  Not implemented.
- **showTonerRequirements=yes**/no
  If a specific toner is requested, its corresponding color ID will be displayed.
- **showInterposerRequirements=yes**/no
  If some input media has to be drawn out of an interposer tray, this request will be displayed.
- **showBarcode=yes**/no
  If a job prints barcode, a list of used barcode types will be displayed.
- **showProposal=**yes/**no**
  Not implemented.
- **showResolution=**yes/**no**

A list of any print resolutions required by the print data for any of the following AFP-items will be displayed:
Pages
Images
Barcode

- **simpleOutput=yes**/no
  This switch affects display of the medium formats and the printer postprocessing device names.
  If set to **no**:
  Medium formats are displayed in the fomat:
  'Length mm x Width mm'.
  Printer postprocessing requests are displayed in the fomat:
  '<Device name> <Operation name> <Reference edge/Reference corner>'
  If set to **yes**:
  Medium dimensions are translated according the following table into medium format names and these will be displayed instead of the medium dimensions:

| Medium Length [mm] | Medium Width [mm] | Medium Format Name |
|---|---|---|
| 216 | 279 | US Letter |
| 216 | 356 | US Legal |
| 279 | 432 | US Ledger |
| 420 | 594 | A2 |
| 297 | 420 | A3 |
| 305 | 430 | A3 uncut |
| 210 | 297 | A4 |
| 215 | 305 | A4 uncut |
| 149 | 210 | A5 |
| 250 | 353 | B4 |
| 157 | 364 | JIS B4 |

All other medium dimensions are shown as with **simpleOutput**=no.

Printer postprocessing requirements are translated outgoing from the technical terms "device name", "operation name" and "reference" to a simplified descriptive name according the following table:

| Device Name | Operation Name | Reference | Simplified Postprocessing Name |
|---|---|---|---|
| UP3I Staple | Corner staple | Top left | Single portrait staple upper left |
| UP3I Staple | Corner staple | Bottom left | Single landscape staple upper left |
| UP3I Staple | Corner staple | Bottom right | Single landscape staple upper right |
| UP3I Staple | Corner staple | Top right | Single portrait staple upper right |
| UP3I Staple | Edge stitch | Left | Dual portrait staple left |
| UP3I Staple | Edge stitch | Top | Single portrait staple upper left |
| UP3I Staple | Edge stitch | Bottom | Dual landscape staple left |
| UP3I Staple | Default | Default | Staple |
| UP3I Stack | Deliver Stack | Default | Deliver Stack |
| UP3I Stack | Altern. Offset Stack | Default | Offset Stacker |
| UP3I Stack | Default | Default | Stack |
| UP3I Bind | Default | Left | Binding left |
| UP3I Bind | Default | Right | Binding right |
| UP3I Bind | Default | Default | Binding |
| UP3I Bookletmaker | Default | Default | Bookletmaker |
| AFP corner staple | - | Top left | Single portrait staple upper left |
| AFP corner staple | - | Bottom left | Single landscape staple upper left |
| AFP corner staple | - | Bottom right | Single landscape staple upper right |
| AFP corner staple | - | Top right | Single portrait staple upper right |

| Device Name | Operation Name | Reference | Simplified Postprocessing Name |
|---|---|---|---|
| AFP edge stitch | - | Left | Dual portrait staple left |
| AFP edge stitch | - | Top | Single portrait staple upper left |
| AFP edge stitch | - | Bottom | Dual landscape staple left |
| AFP corner staple | - | Default | Staple |

All other printer postprocessing requirements are shown with **simpleOutput**=no.

# PCL Converter

## PCL Converter: Concept

### Introduction

This chapter provides general information about the PCL Converter software product. It explains what purpose the PCL Converter serves, introduces the requisite components and describes the workflow.

### Definition

As well as controlling printers directly, the PCL Print Control Language (PCL) by Hewlett Packard can be used to describe entire print pages containing both text and vector graphics.
Many of today's desktop publishing programs generate print files in PCL format. The PCL Converter enables users of such programs to convert their PCL documents into the AFPDS command language. The files can then manipulated using other Océ tools, such as the Professional Document Composer, enabling them to be output as finished publications on Océ printing systems, or be converted to TIFF format for archiving or other purposes.
The PCL Converter supports the PCL 6 (PCL5e, including HP-GL/2, PCL XL, PJL) and PCL 5c.
PCL commands are compact escape sequences embedded in the data stream of a print job, an approach which reduces both the volume of data and the command-decoding overhead.
The PCL Converter converts PCL commands into a compressed, full-page image, compliant with the CCITT T.6 Group 4 Coding Standard (G4 MMR) and implements it into the appropriate command language, taking into account the layout (page) size settings.
PJL commands (Print Job Language) in the data stream are interpreted only if they relate to the PCL data stream. If not, they are ignored.

### Ways of Using the PCL Converter

Under Océ PRISMAproduction Server, the PCL Converter converts PCL files into AFPDS format. Files are composed at 300 dpi for printing with the PCL-Module, and at 600 dpi for the POD-Module. Océ PRISMAproduction Server features a user-friendly menu interface for working with the PCL Converter. The workflow is fully automated. It is integrated into Océ PRISMAproduction Server by way of the Print Job Manager.
Integrating the PCL Converter into Océ PRISMAproduction Server makes the following procedures possible:

- Combining the conversion and print job into a one-step process.
- Linking the conversion seamlessly to the print output.
- Making the conversion service accessible to all Océ PRISMAproduction Server users.

If there is a heavy conversion workload, or if the production process has to meet specific requirements, the PCL Converter should be run on a separate computer (RIP server) upstream from the print server.

This procedure is recommended:

- For applications that print the same documents repeatedly with no changes in content. It is possible to eliminate redundant conversion by separating the conversion work from the job of printing the documents.
- A further reason is the computing power that conversion requires. If printing is slowed due to the print servers conversion workload, you should perform the conversion as a process completely separated from printing.
  The conversion can be carried out at a different time and/or in a different place. For example, conversions can be carried out at night, when the print server does not have to handle the same workload; or you can convert files on a PC other than the print server.

After conversion, files are available to users in the format required for further processing (for example for printing or archiving).
As well as this integrated approach, the PCL Converter can also run as a stand-alone process.

**Stand-Alone Conversion**

The PCL Converter can be used separately from Océ PRISMAproduction Server. This provides more flexibility for custom solutions with the software.
A PCL conversion statement (command line) is provided with the PCL Converter for stand-alone processing. This enables you to activate conversion automatically via your own programs or shell scripts.
Integration of a dedicated conversion PC into the production workflow has to take place on-site, so no facilities can be included in the product package. It is up to you to decide how the conversion process can best be integrated to suit your needs. We have included a few suggestions in this manual, but these are not part of the products functionality as shipped.

## Prerequisites for PCL Conversion

PCL conversion requires the following hardware and software:

| | |
|---|---|
| Operating system: | SUSE Linux Enterprise Server 10 |
| Processor: | Intel Pentium (recommended > 2 GHz CPU performance) |
| RAM: | Recommended > 1 GB RAM for 300 dpi and > 2 GB RAM for 600 dpi resolution |

**Product components**

The product package consists of the following components:

- PCL Converter
- Shell scripts for generating the required output formats
- Internal Fonts

# PCL Converter: Fonts and Bin Control

## Fonts

PCL files may or may not include fonts. The system works with internal PCL fonts if none are included in the files. The following 53 industry standard-compatible fonts are provided in the PCL Converter.

| | | |
|---|---|---|
| CG Times | LetterGothic It | Helvetica Ob |
| CG Times It | Albertus Md | Helvetica Bd |
| CG Times Bd | Albertus Xb | Helvetica Bd Ob |
| CG Times BdIt | Clarendon CdBd | Helvetica Nr |
| Univers MD | Coronet | Helvetica Nr Ob |
| Univers MdIt | Marigold | Helvetica Nr Bd |
| Univers Bd | Arial | Helvetica Nr Bd Ob |
| Univers BdIt | Arial It | NwCentSchlbk Rmn |
| Univers CdMd | Arial Bd | NwCentSchlbk It |
| Univers CdMdIt | Arial Bd It | NwCentSchlbk Bd |
| Unviers CdBd | Times New | NwCentSchlbk Bd It |
| Univers CdBdIt | Times New It | Palatino Rmn |
| AntiqOlive | Times New Bd | Palatino It |
| AntiqOlive It | Times New Bd It | Palatino Bd |
| AntiqOlive Bd | Symbol | Palatino Bd It |
| CG Omega | Wingdings | SymbolPS |
| CG Omega It | ITCAvantGard BK | Times Rmn |
| CG Omega Bd | ITCAvantGard BK Ob | Times It |
| CG Omega BdIt | ITCAvantGard Db | Times Bd It |
| Garamond Antiqua | ITCAvantGard Db Ob | ZapfChancery Md It |
| Garamond Krsv | ITCBookman Lt | ZapfDingbats |
| Garamond Hlb | ITCBookman Lt It | Kanji Mincho |
| Garamond KrsvHlb | ITCBookman Db | Kanji Gothic |
| Courier | ITCBookman DB It | Line Printer Roman 8 |
| Courier Bd | CourierPS | Line Printer PC-8 |

| | | |
|---|---|---|
| Courier It | CourierPS Ob | Line Printer PC-8 D/N |
| Courier BdIt | CourierPS Bd | Line Printer IBM 850 |
| LetterGothic | CourierPS Bd Ob | Line Printer ECMA Latin 1 |
| LetterGothic Bd | Helvetica | Line Printer Legal |

If the PCL file references fonts which are inaccessible at the time of the conversion, the PCL Converter selects fonts in accordance with the usual PCL conventions. At present, it is not possible to pre-load other fonts in addition to the 53 internal standard fonts. All the fonts that the job requires must be present in the print file as inline resources.

## Control of In- and Output Bins

To control the input bins, use the following escape sequences (AFPDS max. 8 input bins):

<Esc>&l20H ---> Bin 1
<Esc>&l21H ---> Bin 2
<Esc>&l22H ---> Bin 3
<Esc>&l23H ---> Bin 4
<Esc>&l24H ---> External
<Esc>&l25H ---> Bin 5
<Esc>&l26H ---> Bin 6
<Esc>&l27H ---> Bin 7
<Esc>&l28H ---> Bin 8
<Esc>&l29H ---> Bin 9
<Esc>&l30H ---> Bin 10
<Esc>&l31H ---> Bin 11
<Esc>&l32H ---> Bin 12
<Esc>&l33H ---> Bin 13
<Esc>&l34H ---> Bin 14
<Esc>&l35H ---> Bin 15
<Esc>&l36H ---> Bin 16

To control the output bins, use the following escape sequences:

<Esc>&l1G ---> Bin 1
<Esc>&l2G ---> Bin 2
<Esc>&l3G ---> Bin 3
<Esc>&l4G ---> Bin 4

# PCL Converter: Saving Resources on Hard Disk

## Required Commands

You can save resources (Fonts, Macros, Overlays) by using the following PJL commands:

- DISKLOCK
- FSMKDIR
- FSDOWNLOAD

*Note:*
Fonts must be available in the 'Mass Storage Format'.

If you want to load a saved resource, you need the alphanumeric ID command:
<ESC>&n#W²filename
# : This symbol represents the number of characters after W
² : This symbol represents the control byte.
The following operations are supported:

| Control-Byte | Operation | Directory*) |
|---|---|---|
| 01 | Combines the actual font ID with font of the given string ID | \fonts |
| 02 | Selects the font with the given String ID as primary | \fonts |
| 03 | Selects the font with the given string ID as secondary | \fonts |
| 04 | Applies the actual Macro ID to the string ID | \pcl\macros or \pclxl\macros |
| 05 | Combines the actual macro ID with macro of the given string ID | \pcl\macros or \pclxl\macros |

*) The directories are strictly predefined and cannot be chosen. The filename, under which the resources are stored, can be chosen at will.

*Note:*
There is no resource management. If a resource file already exists, it will be overwritten! The resposibility for managing resources is only to the user!

## Example 1

| | | |
|---|---|---|
| 00000000 | [Esc%-12345X] | Universal Exit Language |
| 00000009 | @PJL SET RESOLU-TION=600 | |
| 00000032 | [LF] | Line Feed |
| 00000033 | @PJL DEFAULT DISKLOCK=OFF | |
| 00000058 | [LF] | Line Feed |
| 00000059 | @PJL FSMKDIR NAME="0:\pcl\macros" | |
| 00000092 | [LF] | Line Feed |
| 00000093 | @PJL FSDOWNLOAD FORMAT:BINARY NAME="0:\pcl\macros\macro.res" SIZE=16 | |
| 00000161 | [LF] | Line Feed |
| 00000162 | Downloaded macro | |
| 00000178 | [Esc%-12345X] | Universal Exit Language |
| 00000187 | @PJL ENTER LAN-GUAGE=PCL | |
| 00000210 | [LF] | Line Feed |
| 00000211 | This is the downloaded macro : | |
| 00000241 | [CR] | Carriage Return |
| 00000242 | [LF] | Line Feed |
| 00000243 | [CR] | Carriage Return |
| 00000244 | [LF] | Line Feed |
| 00000245 | [Esc&f1Y] | Macro ID <1> |
| 00000250 | [Esc&n10W] | Alphanumeric ID Com-mand |
| 00000256 | ²macro.res | |
| 00000266 | [Esc&f2X] | Execute Macro |

| | | |
|---|---|---|
| 00000271 | [EscE] | Printer Reset |
| 00000273 | [Esc%-12345X] | Universal Exit Language |

**Description of the Commands**

| | |
|---|---|
| 1st command | [Esc%-12345X] This PJL command forces the converter to terminate the active printer language and to tranfer control to PJL. |
| 2nd command | @PJL SET RESOLUTION=600 Sets the resolution to 600dpi. |
| 3rd command | @PJL DEFAULT DISKLOCK=OFF DISKLOCK has to be set to OFF, because otherwise you cannot write on the hard disk. |
| 4th command | @PJL FSMKDIR NAME="0:\pcl\macros" Use this command to create the directory \pcl\macros in the actual working directory. You can use 0 or 1 as volume, which has no effect on UNIX systems but still has to be present. |
| 5th command | @PJL FSDOWNLOAD FORMAT:BINARY<br>NAME="0:\pcl\macros\macro.res"<br>SIZE=16<LF>Downloaded macro<br>This PJL command contains the following steps:<br>1. The format of the data to be saved is binary<br>2. It sets the directory name (0:\pcl\macros) and the file name (\macro.res)<br>3. It specifies the number of bytes of the macro SIZE=16) Finally follows the macro itself (in this case the text "Downloaded macro"). |
| 6th, 7th command | [Esc%-12345X]<br>@PJL ENTER LANGUAGE=PCL<br>Use this command to switch back to PCL again.<br>After the print data: "This is the downloaded macro:", the macro will be executed. |
| 8th command | [Esc&f1Y]<br>The macro ID command sets the ID of the actual macro to 1. |
| 9th command | [Esc&n10W]²macro.res<br>The alphanumeric ID command assignes the string ID "macro.res" to the actual macro ID. You have to use the same string name as in the FSDOWNLOAD command.<br>The alphanumeric ID command has to know how many bytes follow after the last W (in this case 10). The ² symbol here represents the decimal value 05. This control byte indicates, that the string ID is assigned to the actual macro ID. |

| | |
|---|---|
| 10th command | [Esc&f2X]<br>The macro control command executes the macro with the last of all assigned macro ID. |
| 11th command | [EscE]<br>Printer reset command |
| 12th command | [Esc%-12345X]<br>This PJL command initiates the termination of the converter and control goes back to PJL. |

## Example 2

| | | |
|---|---|---|
| 00000000 | [Esc%-12345X] | Universal Exit Language |
| 00000009 | @PJL JOB | |
| 00000017 | [LF] | Line Feed |
| 00000018 | @PJL DEFAULT DISKLOCK=OFF | |
| 00000043 | [LF] | Line Feed |
| 00000044 | @PJL FSMKDIR NAME="0:\fonts" | |
| 00000072 | [LF] | Line Feed |
| 00000073 | @PJL FSDOWNLOAD FORMAT:BINARY NAME="0:\fonts\Matura_MT" SIZE=36496 | |
| 00000139 | [LF] | Line Feed |
| 00000140 | <Fontdaten im Mass Storage Font Format> | |
| | ... | |
| | ... | |
| | ... | |
| 00036638 | [Esc%-12345X] | Universal Exit Language |
| 00036647 | @PJL ENTER LANGUAGE=PCL | |
| 00036670 | [LF] | Line Feed |

| | | |
|---|---|---|
| 00036701 | [Esc*c1D] | Assign Font ID <1> |
| 00036706 | [Esc*c5F] | Make Soft-Font Permanent |
| 00036711 | [Esc(1X] | Primary Soft Font Select ID 1 |
| 00036715 | [Esc&n10W] | Alphanumeric ID Command |
| 00036721 | [2] Matura_MT | |
| 00036731 | [Esc*c1D] | Assign Font ID <1> |
| 00036736 | [Esc*c5F] | Make Soft-Font Permanent |
| 00036741 | [Esc(1X] | Primary Soft Font Select ID 1 |
| 00036745 | This is a Matura Font | |
| 00036769 | [EscE] | Printer Reset |

**Description of the commands**

| | |
|---|---|
| 1st command | [Esc%-12345X] This PJL command forces the converter to terminate the active printer language and to tranfer control to PJL. |
| 2nd command | @PJL JOB Start of the PJL Job |
| 3rd command | @PJL DEFAULT DISKLOCK=OFF DISKLOCK has to be set to OFF otherwise the hard disk cannot be written. |
| 4th command | @PJL FSMKDIR NAME="0:\fonts" With this command you create the directorx \fonts in the current working directory. You can use 0 or 1 as volume, which has no effect on UNIX systems but still has to be present. |
| 5th command | @PJL FSDOWNLOAD FORMAT:BINARY NAME= "0:\fonts\Matura_MT" SIZE=36496<br>This PJL-command initiates several steps. First it specifies the binary data format. Secondly it contains the directoryname (0:\fonts\) and the file name to be saved (Matura_MT). Thirdly it specifies the number of bytes of this font (SIZE=36496). The following contains the font data (in the Mass Storage Font Format). |

| | |
|---|---|
| 6th, 7th command | [Esc%-12345X]<br>@PJL ENTER LANGUAGE=PCL<br>Use both commands to switch back to PCL. |
| 8th command | [Esc*c1D] Assignes ID 1 to the font. |
| 9th command | [Esc*c5F] Use this command to identify the font with ID 1 as permanent. |
| 10th command | [Esc(1X] Use this command to identify the font with ID 1 as primary. |
| 11th command | [Esc&n10W] §²Matura_MT<br>The alphanumeric ID command connects the current font ID to the font with the string ID ,Matura_MT<br>The string name has to be the same as in the FSDOWNLOAD command.<br>The alphanumeric ID command has to know how many bytes follow the terminating W (in this case 10). The symbol ² represents the control byte with the decimal value of 01. |
| 12th command | [Esc*c1D]<br>Assignes ID 1 to the font. |
| 13th command | [Esc*c5F]<br>Use this command to identify the font with ID 1 as permanent. |
| 14th command | [Esc(1X]<br>Use this command to identify the font with ID 1 as primary.. the print data follow (This is a Matura Font). |
| 15th command | [EscE] Printer Reset command. |

# PCL Converter: Operation

## Introduction

This chapter explains how to operate the PCL Converter. It explains how to control the program and outlines measures for correcting possible problems.

### Customizing for Océ PRISMAproduction Server

All necessary customizing is carried out during the installation of the Océ PRISMAproduction Server system.

### Notes on Running Fanfold Printers

The page length (”pagelength” parameter) on fanfold printers is entered in increments of 1/6”. Consider that the page length must always be at least as large as the output size generated in the PCL file, since otherwise PEMs (Print Error Marks) will be printed.
**Example**: 11 4/6" = 29.63 cm, but length A4 = 29.7 cm

## Stand-Alone Conversion in Command Line Mode

### Selecting the Control Procedure

When the PCL Converter is run as a separate process, the conversion job is submitted via a custom-defined statement. A number of these statements are available to choose from. The required statement is either selected by the user or integrated into a custom-defined shell script. This customizing is performed by the system administrator using operating system utilities. You can display a list of the available conversion statements by entering the command ‘pcl’. The following summary is shown on the screen:

```
================================================================================

       PCL-Converter

================================================================================
  Output                                  Shellscript for Resolution
  Format                                  600 dpi          300 dpi
--------------------------------------------------------------------------------
  AFPDS                                   pcla6            pcla3
  TIFF  (n files with 1 page)             pclt6            pclt3
  TIFF  (Multi image tiff file)           pclmt6           pclmt3
================================================================================

[root@pcl root]#
```

General help for command line mode

From this list, locate the shell script you need by combining the output data format with the resolution.

**Example**: you want to convert a PCL file for a 600 dpi printer into AFPDS format. As indicated by the following table, you should use the shell script pcla6.

| | 600 dpi | 300 dpi |
|---|---|---|
| AFPDS (full-page image per page) | pcla6 | pcla3 |
| TIFF (n files with one page) | pclt6 | pclt3 |
| TIFF (multi image tiff file) | pclmt6 | pclmt3 |

*Note:*
You cannot create page segments in output files, which are divided.

**Determining the Correct Parameters**

After locating the shell script you want to use, you have to prepare the following parameters:

- The name of the PCL file to be converted
- The page size of the PCL file

The page size for conversion must match the size specified when the PCL file was generated – otherwise there could be misregistration in the printout.
For example, if a driver centers an A4 page on an A3 page, you must select A3 for the conversion, not A4.

Overview of predefined page sizes:

| DIN Formats | Abbrev. | Size in mm | Size in inches |
|---|---|---|---|
| A4 | D4 | 210.0 x 297.0 | 8.27 x 11.7 |
| A4 uncut | A4 | 215.0 x 305.0 | 8.46 x 12.0 |
| A3 | D3 | 297.0 x 420.0 | 11.7 x 16.5 |
| A3 uncut | A3 | 305.0 x 430.0 | 12.0 x 16.9 |

| US Formats | Abbrev. | Size in mm | Size in Inches |
|---|---|---|---|
| Letter | LET | 215.9 x 279.4 | 8.5 x 11.0 |
| Legal | LEG | 215.9 x 355.6 | 8.5 x 14.0 |
| Ledger | LED | 279.4 x 431.8 | 11.0 x 17.0 |

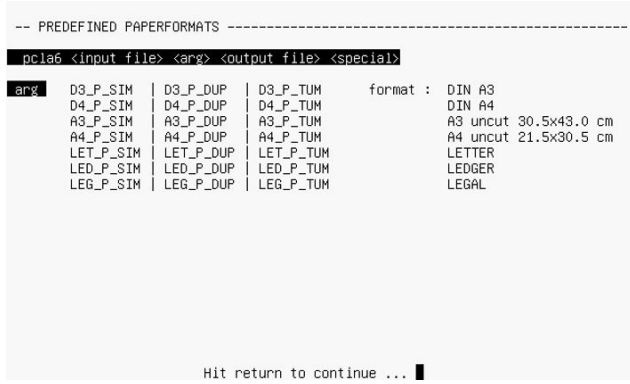
Overview of variable page sizes:

| Variable Formats | Abbrev. | Size in X Direction | Size in Y Direction |
|---|---|---|---|
| cm | M | 0 < x < 138.71 | 0 < y < 138.71 |
| inch | I | 0 < x < 54.61 | 0 < y < 54.61 |

- The layout of the output file (simplex, duplex or tumble)
- The name of the output file to be generated

**Example 1 for help:**:

The entry **pcla6**, for example, would display further information about which parameters are required and which options you can use for the conversion. The first help page shows the settings for predefined paper formats.




Special help for command line mode, part 1, here converting PCL to 600dpi / AFPDS

To view the special options, press the Enter (Carriage Return) key:

Special help for command line mode, part 2, here converting PCL to 600dpi / AFPDS

Press Enter again to view the settings for the variable paper formats:

```
-- special options -----------------------------------------------------

          O         Print edge to edge (OCE compatible)
          E         Missing resource(s) error message, exit
          W         Missing resource(s) warning message, continue
                    (Only E or W possible)
          R         Red is highlight color
          G         Green is highlight color
          B         Blue is highlight color
        RGB         Red, green, blue is highlight color
          C         Cyan is highlight color
          M         Magenta is highlight color
          Y         Yellow is highlight color
        CMY         Cyan, magenta, yellow is highlight color

                    Only one of the highlight color flags possible

                    To select more than one, add them together i.e. "RGBW"

                    All other switches are ignored

                       Hit return to continue ...
```

Special help for command line mode, part 3, here converting PCL to 600dpi / AFPDS

The next window shows the special options for the variable paper formats:

```
-- VARIABLE PAPERFORMAT -------------------------------------------------

 pcla6 <input file> <arg1> <arg2> <arg3> <arg4> <output file> <special>

 arg1   I | M                          Measure in inch | cm

 arg2   paper size x direction         Example  21.0 or 21

 arg3   paper size y direction         Example  29.7

 arg4   SIM | DUP | TUM                Simplex | Duplex | Tumble

                       Hit return to continue ...
```

Special help for command line mode, part 4, here converting PCL to 600dpi / AFPDS

**Example 2 for fixed page size:**

| Conversion | Command |
|---|---|
| into output format **AFPDS** | **pcla** |
| with resolution **600 dpi** | **pcla6** |
| PCL file **t1.bin** | **pcla6 t1.bin** |
| with page size **A4** | **pcla6 t1.bin D4** |
| and layout **simplex** | **pcla6 t1.bin D4_P_SIM** |
| into output file **t1.af6** | **pcla6 t1.bin D4_P_SIM t1.af6** |

**Example 3 for variable page size:**

| Convesion | Command |
|---|---|
| into output format **TIFF** | **pclt** |
| with resolution **300 dpi** | **pclt3** |
| PCL file **t2.bin** | **pclt3 t2.bin** |
| with variable page size: | |
| in **inches** | **pclt3 t2.bin I** |
| of **10.3** in X-direction | **pclt3 t2.bin I 10.3** |
| of **13.8** in Y-direction | **pclt3 t2.bin I 10.3 13.8** |
| and layout **duplex** | **pclt3 t2.bin I 10.3 13.8 DUP** |
| into output file **t2.af6** | **pclt3 t2.bin I 10.3 13.8 DUP t2.af6** |

Error messages are output on screen via STDERR (Standard Error).

### Highlight Color

To extract highlight color use 1, 2 or 3 for <special>.
1 extracts red
2 extracts green
3 extracts blue

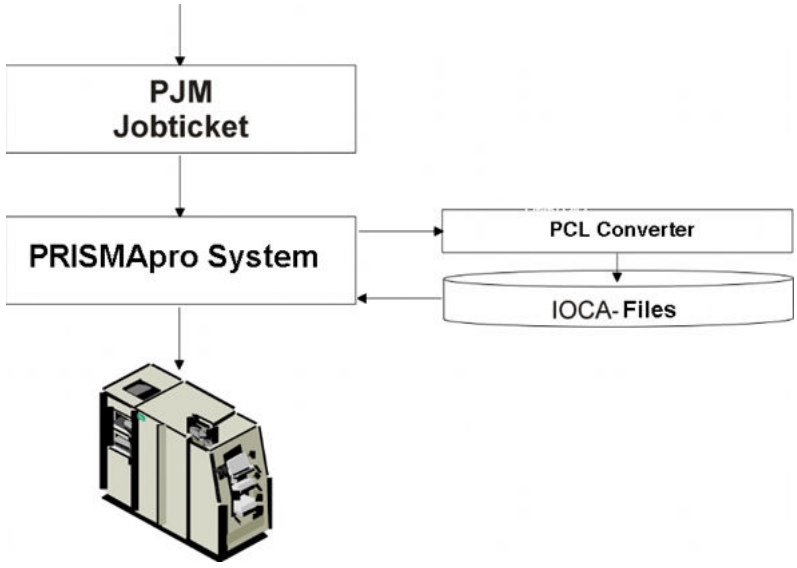
# PCL Converter: Conversion under Océ PRISMAproduction Server

## Introduction

The PCL Converter is integrated into Océ PRISMAproduction Server (currently POD-Module only) by way of the Print Job Manager. This subject is dealt with in detail in the section describing the Print Job Manager.

**Workflow**

You control the PCL Converter workflow and define conversion parameters via the Océ PRISMAproduction Server Print Job Manager. This creates a job ticket based on the settings you specify and sends the ticket to the Océ PRISMAproduction Server master. Using the details in the job ticket, the master then directs the distribution of the work packages, sends instructions to programs and monitors all the stages in job handling. This is done in a way that maximizes the data throughput and distributes the workload evenly within the Océ PRISMAproduction Server system.




Workflow when PCL conversion is integrated into Océ PRISMAproduction Server

## Creating a Conversion Job with the Print Job Manager

1. Working in the Print Job Manager, select the PCL file you want to convert and place it in the job list (called the 'List of Files & Workflow Definition') with the data format PCL. You can make certain settings for the PCL format in the File Properties window.

2. In this window select the print format in the 'Paper size' box on the 'Media' tab:
   - A4
   - A4_uncut
   - A3
   - A3_uncut
   - Letter
   - Legal
   - Ledger
   - Variable

   Make sure to choose the format in which the pages of the PCL file were generated.
3. The resolution is set automatically by the Print Job Manager.
4. Choose the printing mode in the Page Layout box:
   - Simplex
   - Duplex
   - Tumble

   The PCL Converter can compose files for output on one or both sides of the paper. With output on both sides, you can choose whether the finished document is to be set out like a book (pages are turned to the left) or like a wall calendar (pages are turned over the short edge).
5. You can use the collect function to chain multiple PCL files for processing together. Consider that a PCL reset (ESC E) is executed before and after each file.

*Note:*
A further point to consider: When you place a series of PCL files in the List of Files and indicate that you want these files to be chained, the chaining is performed following the conversion. Each file in the list is treated as a completely separate entity, and a number of PCL Converters can work on the list at the same time. However, conversion using more than one PCL Converter can change the order in which the files are sequenced. If you want to keep your files in a particular order, you must create a chained file yourself before performing the conversion.

# PCL Converter: Troubleshooting

## Introduction

The PCL language is defined such that users essentially have the responsibility for preventing errors, and there are always alternative courses of action available, defined as part of the language. Consequently, it is at present up to the user to ensure that, for example, all the required resources are embedded correctly in the data stream.
Error messages that can occur on IO processors or due to incorrect parameters:

**Messages in Stand-Alone Conversion**

The Converter error messages are output on STDERR in accordance with the conventions described in the table below.

**Messages in Conversion Integrated into Océ PRISMAproduction Server**

All processes on the Océ PRISMAproduction Server system run under the control of the Order Distribution System (ODS). This also goes for the output of error messages. ODS always uses the error code 203 for converter errors. Messages are displayed in the ODS Control window.
The Océ PRISMAproduction Server messages and logs only tell you that a conversion was begun, and whether it was completed, aborted abnormally due to an error, or canceled by an Océ PRISMAproduction Server Cancel command. ODS is always specified as the module reporting the error.

**Known and acceptable differences between the PCL Converter and the HP Reference Priner (LaserJet)**

- If a Universal Exit Language (<Esc>%-12345X) command appears within a PCL file, all resources (softfonts, macros, overlays ...) are deleted and are not available anymore after a UEL command! Reason: the externally purchased sources do not allow ' state preservation'.
- Resources (softfonts, macros, overlays ...) are not permanently kept in the memory. Therefore the resources cannot be accessed anymore after a restart of the PCL converter. Reason: The PCL converter is restarted for every conversion. Unlike an HP printer it does not work in an infinite loop. Therefore the converter does not know permanent resources from a former conversion anymore.

**Known and acceptable differences between the PCL Converter and PCL Emulation**

- Highlight color cannot be accessed like it is possible with the PCL emulation. For this full color would be necessary as described in the HP "Technical Reference Manual". Use HP color drivers (we recommend HP Color LaserJet 4500) to create color files.

Reason: the externally purchased sources comply with the manuals mentionened above and expect escape sequences for color conversion described in theses manuals

## Converter Error Messages

| Error No. | | |
|---|---|---|
| **Under Océ PRISMAproduction Server** | **Stand-alone process** | **Error message** |
| 0 | 0 | Process completed without errors |
| - | 01 | Error opening protocol file.<br>Note: The logging function is only intended for troubleshooting. It must be switched off during normal operation. Action: Switch off the logging function. |
| 102 | 02 | Not enough memory |
| 124 | 06 | Error opening output file<br>Action: System error, inform administrator |
| 125 | 07 | Error opening input file<br>Action: Verify that input file exists. If it does, inform the administrator. |
| 126 | | Expired or invalid license |
| 104 | 08 | Error reading input file<br>Action: System error, inform administrator |
| 128 | 09 | Wrong page layout<br>Note: Internal error<br>Action: Report error to systems consultant |
| 131 | 12 | Command line error<br>Action: Check and correct the command line. |
| 105 | 13 | Error writing output file<br>Action: System error, inform administrator |
| 132 | 14 | Compression error<br>Note: Internal error<br>Action: Report error to systems consultant |
| 134 | 16 | Resolution not supported Note: Internal error<br>Action: Report error to systems consultant |

| Error No. | | |
|---|---|---|
| 135 | 17 | Front end error with return code = 0<br>Note: Internal error<br>Action: Report error to systems consultant |
| 136 | 18 | Page size exceeds limitations<br>Note: Internal error<br>Action: Report error to systems consultant |
| 137 | 19 | AFPDS and TIFF datastream only MMR possible<br>Note: Internal error<br>Action: Report error to systems consultant |
| 138 | 20 | Input trays out of range<br>Note: Wrong input tray selected.<br>Action: Select correct input tray. |
| 139 | 21 | Output trays out of range<br>Note: Wrong output tray selected.<br>Action: Select correct output tray. |
| These settings are rejected at the GUI | 22 | Page width greater page length not possible<br>Note: User error.<br>Action: Correct input file. |
| These settings are rejected at the GUI | 24 | Variable format x- or y-value equal 0<br>Note: User error.<br>Action: Correct input file. |
| Not possible | 26 | Input file is equal to output file<br>Note: User error.<br>Action: Correct call parameter settings. |
| 146 | 28 | Compression algorithm not supported<br>Note: User error.<br>Action: Generate PCL file with permitted compression algorithm |
| 147 | 29 | Resolution 600 dpi not allowed (low end)<br>Note: User error.<br>Action: Generate a PCL file with a permitted resolution |
| 154 | 36 | Cannot open file resource file<br>Note: Internal error<br>Action: Report error to systems consultant |

| Error No. | | |
|---|---|---|
| 155 | 37 | Error writing file resource file<br>Note: Internal error<br>Action: Report error to systems consultant |
| 156 | 38 | Invalid access on resource file<br>Note: Internal error<br>Action: Report error to systems consultant |
| 157 | 39 | PJT parameter not complete<br>Note: Internal error<br>Action: Report error to systems consultant |
| 200 | | Output trays not possible in AFPDS |
| 201 | | Resolution frontend/backend not equal |
| 202 | | Possible font substitution (font characteristics) |
| 203 | | Missing resource(s) [font ID] |
| 204 | | Missing resource(s) [symbol set ID] |
| 205 | | Missing resource(s) [macro ID] |

# TIFF Converter

## TIFF Converter: Concept

### Introduction

This chapter gives general information on the TIFF Converter software product. It describes the tasks performed by the converter and outlines ways it can be used.
There is also a survey of necessary components and an outline of the working procedure.

### Definition

Many of today's desktop publishing programs output their print files in TIFF format. With the TIFF Converter, you can convert your TIFF documents into the AFPDS or PCL command languages of printing systems. The files can then be output as finished publications, ready for distribution.

### Ways of using the TIFF Converter

**Dedicated Conversion Server**

To provide more scope for individual solutions with the TIFF Converter, the software can also be run on a dedicated system, completely separate from the print server. In this type of installation, the TIFF Converter can be started by command line entry. You can:

- Shift the conversion workload from the print server to a different PC.
- Activate the conversion automatically via your own programs or shell scripts.

This approach is recommended:

- For applications that always print the same documents without changes to the contents. Since conversion is a separate process, you only have to repeat it when the contents or form of the document change.
- If printing is slowed due to the print server's conversion workload, you should conduct the conversion as a completely separate process from printing. The conversion can be carried out at a different time and/or in a different place. For example, conversions can be carried out at night, when the server does not have to handle the same workload; or you can convert files on a PC other than the print server.

Both these approaches will help restore output on the printing system to rated speed. After conversion, files are available to users in the format required for further processing (for example for printing and archiving).

*Note:*
To use the TIFF Converter on a separate system, you need a high performance PC with hardware and software that complies with the minimum requirements given in folowing chapter.

*Note:*
Integration of a dedicated conversion PC into the production workflow has to take place on-site, so no facilities can be included in the TIFF Converter product package. It is up to you to decide how the conversion can best be integrated to suit your needs. We have included a few suggestions in this manual, but these are not part of the product's functionality as shipped. They are merely intended to give you some ideas and help for implementing your own solution.

## Prerequisites for TIFF Conversion

TIFF conversion requires the following hardware and software:

| | |
|---|---|
| Operating system: | SUSE Linux Enterprise Server 10 and higher |
| Processor: | Intel Pentium (recommended > 2 GHz CPU performance) |
| RAM: | Recommended > 1 GB RAM for 300 dpi and > 2 GB RAM for 600 dpi resolution |

# TIFF Converter: Operation

## Introduction

This chapter explains how to operate the TIFF Converter. It describes the program functions and outlines measures for correcting possible problems.

## Stand-Alone Conversion in Command Line Mode

If the TIFF Converter is run as a separate process, the conversion job is submitted via a user-specific statement. A number of these statements are available to choose from. The required statement is either selected by the user or integrated into a user-specific shell script. This customizing is performed by the system administrator using operating system tools.

## Description of Control Parameters

If the TIFF Converter is called without parameters (tiffconv), the following help text is displayed:

```
*******************************************************************************
*                (C) Océ Printing Systems Germany 2001 - 2003                 *
*                  Proprietary data, company confidential.                    *
*                           All rights reserved.                              *
*******************************************************************************

        Version : V3.02.01
                  Large File Support, max. TIFF file size : 4 GB

        Usage :   tiffconv [options] in out

--more--
```

```
        Valid options (values in brackets are default) :

        -s      : samples tiff files out of a directory to one output file
        -l      : samples tiff files out of a filelist to one output file
        -w      : samples tiff files specified by wildcards to one output file

        -p      : generates only a page (printfile) -- obsolete
        -x arg  : value in dots +/- x-coordinate (0)
        -y arg  : value in dots +/- y-coordinate (0)
        -n      : protocol off (on)
        -N      : display work flow (off), no protocol
        -a      : output ascii strings (off)
        -m arg  : d = duplex, t = tumble (simplex)
        -i arg  : intray 0 = Tray A, 1 = Tray B, 2 = Tray C, ...
        -o arg  : outtray 0, 1, 2, ...
        -u      : A4 uncut (A4) -- obsolete
        -f arg  : 0 = A4, 1 = A4uncut, 2 = A3, 3 = A3uncut, 4 = B4, 5 = Letter,
                  6 = Legal, 7 = Ledger, 8 = A5, 9 = 19x24cm, 10 = 13.97x21.59cm
        -X arg  : A = AFPDS, P = PCL (AFPDS)

        The options may appear in any order, but must be separated by a blank !

--more--
```

```
        Highlight color options :

        -H <color> [-K] -U <R> -W <G> -Y <B>

        -H      : Enables highlight color (off)
        <color>: Extracted color, 1 = red, 2= green, 3 = blue, 4 = red/green,
                 5 = red/blue, 6 = green/blue, 7 = red/green/blue

        -K      : Separates the highlight color image and the b&w image (off)
                  The highlight color image is printed on the first page,
                  the b&w image is printed on the second page

        -U <R> : R = threshold value red (0 to 255)
        -W <G> : G = threshold value green (0 to 255)
        -Y <B> : B = threshold value blue (0 to 255)

        These options must be used in conjunction (except the -K option),
        and must be separated by a blank !


--more--
```

```
        Variable paper size options :

        -M      : measure in cm
        or
        -I      : measure in inch
        -A arg  : paper size x direction
        -B arg  : paper size y direction

        Example : tiffconv -I -A 5.0 -B 6.0 in out
                             ------ ------
                               |      |- 6 inch in y direction
                               |
                               |-------- 5 inch in x direction

        If the variable paper size options are used, the -f option
        should not be used !



--more--
```

```
        Arguments :

        in      : if -s option is used, specifies the first tiff file
                : if -l option is used, specifies the ascii file containing
                  the list of tiff files
                : if -w option is used, specifies the tiff file(s) with
                  wildcard(s). The filename must be placed in quotation marks !
                : all other options, specifies the tiff file

        out     : output file
[root@tiff root]#
```

The control parameters can be entered in any sequence, but must be separated by a blank.

| Control Parameter | Description |
|---|---|
| -s | Collects all the TIFF files in a directory, converts them and creates a single output file. The TIFF files have to be named as follows:<br>name.ext ext = 1 ... n.<br>Files have to be numbered contiguously. The name of the first file in the series is specified with the program call.<br>Example: Files image.1, image.2, image.3, image.4 and image.5 are converted together and combined in a single output file. |
| -l | Collects the TIFF files listed in an ASCII file, converts them and creates a single output file.<br>Example: tiffconv -l -X A filelist list.afp<br>File filelist:<br>/u/tiff/File1.tif<br>/u/tiff/File2.tif<br>/u/tiff/File3.tif<br>:<br>/u/tiff/Filex.tif |
| -w | Collects the TIFF files specified by wildcard, converts them and creates a single output file. Files are collected according to UNIX conventions.<br>Example: tiffconv -w -X A "*.tif" wildcard.afp<br>The inverted commas must be included in the command. |
| -p | Generates just a page, without page description. (Default: print file). |
| -x arg | x offset (+/-) in dots<br>(Default: 0).<br>Note: Negative values are not permitted for PCL. |
| -y arg | y offset (+/-) in dots<br>(Default: 0).<br>Note: Negative values are not permitted for PCL |

| Control Parameter | Description |
|---|---|
| -n | Turns screen output of tags off.<br>(Default: On). |
| -a | Activates the output of the ASCII strings in the TIFF file.<br>(Default: Off). |
| -m arg | Defines the page layout. Duplex: -m d, Tumble: -m t.<br>(Default: Simplex). |
| -i arg | Selects the input tray.<br>Tray A: -i 0, Tray B: -i 1, Tray C: -i 2.<br>(Default: No input tray). |
| -o arg | Selects the output tray.<br>Tray B: -o 1, Sample tray: -o 2.<br>(Default: Output tray A). |
| -u | Paper format A4 uncut.<br>(Default: A4).<br>Note: Old parameter, now replaced by -f arg. |
| -f arg | Selects the paper format A4 :<br>-f 0 A4uncut :<br>-f 1 A3 :<br>-f 2 A3uncut :<br>-f 3 B4 :<br>-f 4 (not for PCL) Letter :<br>-f 5 Legal :<br>-f 6 Ledger :<br>-f 7 A5 :<br>-f 8 (not for PCL) 19x24 cm :<br>-f 9 (not for PCL) 13.97x21.59 cm :<br>-f 10 (not for PCL) |
| -X arg | Selects the printer data stream<br>AFPDS : -X A<br>PCL : -X P<br>(Default : AFPDS) |
| -M<br>-I<br>-A arg<br>-B arg | Variable paper format:<br>The variable paper format is composed of three parameters: the measuring unit (cm or inch), the x extent and the y extent.<br>Dimension in cm<br>Dimension in inches<br>Page size x extent<br>Page size y extent |

| Control Parameter | Description |
|---|---|
| -H<br><color><br>-K<br>-U <R><br>-W <G><br>-Y <B> | Enables highlight color (Default:off) *<br>Extracted color *<br>1=red, 2=green, 3=blue, 4=red/green, 5=red/blue, 6=green blue 7=red/green/blue<br>Separates the highlight color image and the black and withe images (optional) (Default: off).<br>Threshold value red * (0 - 255)<br>Threshold value green * (0 - 255)<br>Threshold value blue * (0 - 255)<br>* = These options must be used in conjunction. |

The TIFF converter supports Custom Tone for TIFF files Rev. 6.0 (Palette-color images and RGB full color images).

## Tag Handling

The tags listed below are those supported by the program. The tags encountered in the file are logged in STDOUT (when the parameter -n is not specified). If parameter -a is specified, the ASCII strings in the TIFF file are output to STDOUT. The tags are output as follows:
!! TAG: Tag is supported, and parameter(s) is (are) correct.
!? TAG: Tag is supported, parameter(s) not correct.
?! TAG: Tag is not supported.
?? TAG: Unknown tag.

| | |
|---|---|
| New Subfile 254(0xFE) | The parameter value must be 0. |
| Subfile Type 255 (0xFF) | The parameter value must be 0. |
| Image Width 256 (0x100) | The parameter in the tag is transferred to the Image Data Descriptor (image x extent). The parameter value must be on a byte boundary. |
| Image Length 257 (0x101) | Provided the image is not divided into strips, the parameter in the tag is transferred to the Image Data Descriptor (image y extent). |
| Bits per Sample 258 (0x102) | The parameter in the tag must be 1. |

| | |
|---|---|
| Compression 259 (0x103) | Depending on the parameter, the Image Encoding Parameter field is set to the following value:<br>1 = no compression<br>2 = G3 MH compression (one-dimensional)<br>3 = G3 MR compression (two-dimensional)<br>4 = G4 MMR compression (two-dimensional) |
| Photometric Interp. 262 (0x106) | The parameter value must be 0. |
| Fill Order 266 (0x10a) | If the parameter is set to 2, the bits in each byte of the output file swap positions as follows: bit 0 swaps with 7, bit 1 with 6, bit 2 with 5, bit 3 with 4. |
| Image Descriptor 270 (0x10e) | The ASCII string is output to STDOUT if parameter -a is set. |
| Maske 271 (0x10f) | The ASCII string is output to STDOUT if parameter -a is set. |
| Model 272 (0x110) | The ASCII string is output to STDOUT if parameter -a is set. |
| Strip Offsets 273 (0x111) | Both 'Pointer to Image Data' and 'Pointer to Offsets' are supported. |
| Orientation 274 (0x112) | The parameter value must be either 1, 3, 6 or 8. |
| Samples per Pixel 277 (0x115) | The parameter value must be 1. |
| Rows per Strip 278 (0x116) | If the image is divided into strips (the number of rows per strip is unequal to the image length), an image is created for each strip. |
| Strip Byte Counts 279 (0x117) | Both 'Bytecount of compressed Data' and 'Pointer to Byte Counts' are supported. If the image is divided into strips, data fields of corresponding lengths are created in the Image Data Descriptor. |
| Min Sample Value 280 (0x118) | The parameter value must be 0. |
| Max Sample Value 281 (0x119) | The parameter value must be 1. |

| | |
|---|---|
| X-Resolution 282 (0x11a) | The parameter in the tag is entered in the Image Data Descriptor (X image dots per base measuring unit). The resolutions have to be 300 and 600 dpi if the image is divided into stripes. The X resolution must have the same value as the Y resolution. |
| Y-Resolution 283 (0x11b) | The parameter in the tag is entered in the Image Data Descriptor (Y image dots per base measuring unit). The resolutions have to be 300 and 600 dpi if the image is divided into stripes. The Y resolution must have the same value as the X resolution. |
| Planar Configuration 284 (0x11c) | The parameter value must be 1. |
| Page Name 285 (0x11d) | The ASCII string is output to STDOUT if parameter -a is set. |
| Resolution Unit 296 (0x128) | The parameter value must be 2. |
| Software 305 (0x131) | The ASCII string is output to STDOUT if parameter -a is set. |
| Date Time 306 (0x132) | The ASCII string is output to STDOUT if parameter -a is set. |
| Artist 315 (0x13b) | The ASCII string is output to STDOUT if parameter -a is set. |
| Hostcomputer 316 (0x13c) | The ASCII string is output to STDOUT if parameter -a is set. |
| Ink Names 333 (0x14d) | The ASCII string is output to STDOUT if parameter -a is set. |
| Target Printer 337 (0x151) | The ASCII string is output to STDOUT if parameter -a is set. |
| Copyright 33432 (0x8298) | The ASCII string is output to STDOUT if parameter -a is set. |

Tags not included in the list above are not supported.

## Conversion with the Print Job Manager (PJM)

Load a TIFF file into the 'List of Files & Workflow Definition' section of the PJM. Be sure that 'TIFF' is selected in the 'Format' list box. Now you can click the 'Edit File Pa-

rameter' button and make your settings to collect several TIFF files in one file, to make composer settings, to define medias or to separate colors.

# TIFF Converter: Troubleshooting

## TIFF Converter Error Messages

If the TIFF Converter is run as a separate process, the converter error messages are output to STDERR in English.

| Error | Action |
|---|---|
| Error 01: Cannot open output file | Verify that the requested file exists. |
| Error 02: Cannot open input file | Verify that the requested file exists. |
| Error 03: Memory allocation failed | System error; consult your system administrator. |
| Error 04: Reading input file | Report the error to your system consultant. |
| Error 05: Resolution X != Y | Create TIFF file with the correct resolution (300 or 600 dpi). |
| Error 07: No TIFF file | |
| Error 08: Wrong page layout | Call the converter with the correct layout (-m d or -m t). |
| Error 09: Wrong intray | Call the converter with the correct input tray. |
| Error 10: Internal inconsistency | Internal error. Report the error to your system consultant. |
| Error 11: Wrong outtray | Check and correct the command line entry. |
| Error 12: Data stream not supported | Check and correct the command line entry. |
| Error 13: Wrong parameter in command line | Check and correct the command line entry. |
| Error 14: Image scanline data not at byte boundary | Note: Applies only to LIP controller. The error cannot occur with the SRA controller. |
| Error 15: Compression algorithm not supported | Create a TIFF file with the correct compression algorithm. |
| Error 16: Writing output file | Report the error to your system consultant. |
| Error 17: No valid license for TIFF Converter | Obtain a license. |
| Error 18: No output file in the command line | Check and correct the command line entry. |

| Error | Action |
|---|---|
| Error 19: Variable format not supported in PCL | Variable format possible in AFPDS only. |
| Error 20: Measure undefined | Check and correct the command line entry. |
| Error 21: Input file has no valid extension (option sample) | Check and correct the command line entry. |
| Error 22: Pointer to TAGs outside valid range | Create the TIFF file again. |
| Error 23: Orientation Parameter not supported in PCL | Create the TIFF file again. |
| Error 24: TAG 0x140 Color Map not supported | Create the TIFF file again without color information. |
| Error 25: TAG 0x102 Bits Per Sample parameter not supported | Create the TIFF file again without color information. |
| Error 26: TAG 0x115 Samples Per Pixel parameter not supported | Create the TIFF file again without color information. |
| Error 27 - 30: Internal error | Report the error to your system consultant. |
| Error 31: Child process not executed | Report the error to your system consultant. |
| Error 32: Child process failed | Report the error to your system consultant. |
| Error 33: No such file | Check whether the ASCII file exists. |
| Error 34: TAG 0x106 Photometric Parameter not supported | Create the TIFF file without the inverted image. |
| Error 35: Name of input file specified incorrectly with collect function (-s option) | Rename the input file(s). |
| Errors 41-43: reserved | |
| Error 44: Only 300 or 600dpi are permitted for striped images | Create TIFF file with the correct resolution (300 or 600 dpi). |
| Errors 45-49: reserved | |
| Error 50: TAG's not in ascending order | Create TIFF file with the correct resolution (300 or 600 dpi). |
| Errors 45-49: reserved | |

| Error | Action |
|---|---|
| Error 50: TAG's not in ascending order | Create TIFF file with the correct order. |
| Errors 51-53: reserved | |
| Error 54: Resolution TAG 0x11A or 0x11B missing | Create TIFF file with correct TAG's. |

# PPML Converter

## PPML Converter: Overview

### Introduction

This converter enables you to print PPML files via the Océ PRISMAproduction Server POD-Module. PPML (Personalized Print Markup Language) is based on XML and is used for printing personalized data.

### Requirements

You need a license for the Océ PRISMAproduction Server POD-Module and additionally a license for the PPML converter:

PPML2AFPconvert 4.0

For the printer a CPSI license is required.

The following Hard- and Software versions are required:

- Océ PRISMAproduction Server Server V4.0 or higher
- Suse Linux SLES10 or higher
- SPS with PS Version 3.8.2c or higher
- Printer from bundle 5 Functional Code and CPSI - RIP V3.04.02 or higher

### Installation and Deinstallation

The PPML-Module is installed with the Océ PRISMAproduction Server CD with licenses for the Océ PRISMAproduction Server POD-Module and the PPML-Module.
Installation is described in chapter "Océ PRISMAproduction Server Installation/Deinstallation/Update" in the Océ PRISMAproduction Server Administration Settings and Tasks Guide.

A demo application is installed on installation into the $DEMO directory.
You can check if the installation was successful by printing this demo application.

Deinstallation is performed via the install.prisma script: deinstallation of a component of Océ PRISMAproduction Server.

## Basic Functionality

The PPML converter represents a program, which runs under Linux. The program reads a PPML file and converts it to AFPDS, which then can be printed on Océ printers with bundle 5 - functional code. Additionally to the PPML file a DTD (description of the XML structure of PPML) is needed and also all external resources belonging to the PPML file. The program analyzes the PPML file and converts the layout to AFPDS while keeping the original structure. The PPML objects will be converted to one PDF container per page. These containers are then rastered and printed by the printer.

The program is integrated into the Océ PRISMAproduction Server workflow an can be used after installation, if the correct license is installed.

## Benefits and Restrictions of the PPML Converter

The basic benefits of the program are:

- All Océ printers with SRA3 controller and bundle 5 functional code (CPSI) are supported.
  **Note**: To have access to all functions of the program, the connected printers must have a CPSI license for the functional code.
- Support of PPML version 2.2 with UTF-8 coding.
- Conversion of PPML files and resources to AFPDS.
- Setting Simplex/Duplex via the GUI.
- Setting of X2up via the GUI of the Professional Document Composer.
- PS, PDF, TIFF and JPEG objects are supported (Conformance Subset Graphics Art of PPML)

The restrictions are:

- Multilevel is not supported. Color support depends on the abilities of the printer.
- Only PPML files are supported, which comply with the Graphics Arts Conformance Level.
- PPML and AFPDS files up to a maximum of 2 GB are supported.
- By mapping color on gray scales, contrasts maybe lost.

# PPML Converter - Workflow

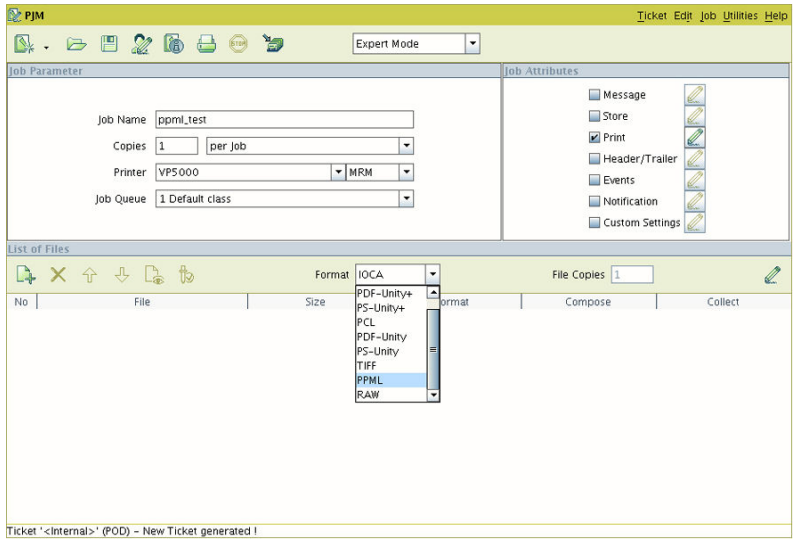
## Introduction

**Prerequisites**:

- Proper installation of Océ PRISMAproduction Server (+POD-Module) V4.0 or higher.
- Proper import of licenses.
- All external resources for the PPML application must be located in the subdirectory 'ppml' of the application.
- The PPML application should be located in the same directory but can also be stored in any other directory.
- The related DTD file must be located in the directory '/u/prismapro/lib/ppml'. Per default the files 'ppml102.dtd' and ppml 220 dtd is copied in this directory during installation.

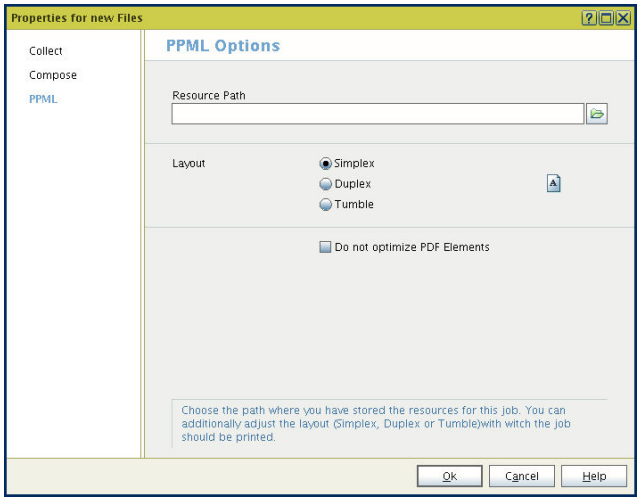
## Conversion and Printing

1. Open the PJM with a POD ticket and set the correct format (PPML):




2. Add the PPML file to be printed to the 'List of Files'.
3. Open the 'File Properties' by clicking the respective icon: .

4. A window with two dialogs is opened:




5. In the 'PPML Options' dialog first set the correct resource path. Basically there are two possibilities to store the resources for the PPML converter:
   - If the resources are located on the computer, on which the converter is running, these resources can be stored in a normal Linux path. You then have to select this local path in the file selection box.
   - If the resources are located on another computer of the Océ PRISMAproduction Server network, on which the converter is not running, a virtual directory $RESOURCE_PPML is provided. This directory is a link to '/u/prismapro/data/ppml'. In this directory you have to create a subdirectory, in which all necessary resources must be copied. This subdirectory has to be selected as 'Resource Path'. Per default a subdirectory 'demo' is already existing.

   Additionally you can define the layout to be printed in this dialog.
   'Do not optimize PDF Elements': When converting PPML data, PDF pages are created which are packed in the corresponding containers of the AFPDS data stream. During the PDF creation for example some parts can be compressed. This may lead to a smaller amount of data, but decreases performance during conversion. Per default the optimization is performed, but can be switched off if this box is activated.
6. Use the 'Compose' dialog to call the Professional Document Composer to create impositioning sets for certain postprocessing devices (see the user guide for the Professional Document Composer). This dialog also allows you to combine the PPML file with a predefined impsitioning scheme.
7. Click the 'Execute' button to convert and print the file on the selected target printer.

# 'DPconnect'

## 'DPconnect' Functionality

### Introduction

'DPconnect' enables you to print jobs, which have been sent from a Xerox print job submitter to an Océ Océ PRISMAproduction Server system with the POD-Module. 'DPconnect' can be installed as a license dependent option for the POD-Module.

'DPconnect' allows you to replace the following **Xerox printer types**:

- Xerox DocuTech 61xx
- Xerox DocuTech 1xx HighLight Color
- Xerox DocuTech 135
- Xerox DocuPrint 4635 NPS
- Xerox DocuPrint 48xx NPS
- Xerox Nuvera

'DPconnect' emulates the interface between a Xerox print job submitter and the Xerox print server. Therefore the known Xerox workflow is not changed. Via 'DPconnect' Xerox print jobs will be received, converted, transferred to the Océ PRISMAproduction Server ODS process chain and executed. At this point the print job is a normal Océ PRISMAproduction Server print job. No operator interventions are required.

Additionally 'DPconnect' is able to print jobs, which have been created by standard LP clients. These jobs may or may not have a Xerox job ticket. Also jobs created by Windows printer drivers and by LP programs belong to this type.

### 'DPconnect' Functions

'DPconnect' supports the ASCII-ticket format and the XPIF-ticket format.

The following **Xerox print submitter** software can be used with Océ 'DPconnect'. The above mentioned printer types can be used with this software:

- **DigiPath (V1.2, V2.0, V2.1, V3.0, V4.0), FreeFlow (Makeready V2.0, V3.0, V4.0, V5.0)**
  **- DSM (Document Scan and Makeready):**
  Production printing of RDO data
  Printing of RDO data via printer drivers (see below)
  **- QuickPrint:**
  Production printing of RDO data

PostScript
PDF
PCL
ASCII
Tiff

- **Xerox Printer Drivers for Windows**
  The following types of drivers are supported:
  - PostScript driver
  - PCL driver
  Xerox job ticket generation may be switched on or off.
  With print jobs for the DocuPrint 48xx NPS hightlight color substitution actions are not available.

- **Xerox XDS**
  XDS Plus is not supported. The following data types are supported for each printer model:
  - Printer default
  - PostScript
  - PDF
  - PCL
  - ASCII
  - TIFF

- **Xerox FreeFlow Print Manager**
  The following data types are supported for each printer model:
  - Printer default
  - PostScript
  - PDF
  - PCL
  - ASCII
  - TIFF

- **Print jobs from standard LP clients**
  DPconnect accepts print jobs submitted by a standard lp-client such as the Windows- or LINUX-lpr. Also Window printer drivers using the lp protocol are accepted. The following data types (with or without Xerox-job-ticket) are supported:
  - Printer default
  - PostScript
  - PDF
  - PCL
  - ASCII

- TIFF
- AFP (IOCA)

PostScript- and PCL-data may be enriched with PJL-commands, however, PJL-commands other than PDL-language-settings, will be ignored. If no explicit PDL-language-setting exists, 'DPconnect' determines the type of the print data by searching for characteristic byte sequences

- **Customer developed print job submitter software with:**
  - File types: PostScript, PDF, PCL, ASCII, TIFF, AFP (IOCA)
  - Xerox-ASCII- or XPIF-job ticket or without job ticket
  - Using LP-protocol or Océ PRISMAproduction Server Hotdir

*Note:*
It is recommended to use the above mentioned Xerox printer types! These are the most capable ones because they offer the widest range of job features. Of course you can use other Xerox printer types. But Xerox job tickets for these printer types may not be suitable for all desired job features.

- **Print jobs with other Xerox job ticket types**

  'DPconnect' accepts jobs with almost any kind of Xerox job ticket which complies with the Xerox Job Ticket Programming Guide. This is to cover a wider range of Xerox print jobs. However some rarely appearing job ticket statements are not implemented. These statements will be shown in a message in the Océ PRISMAproduction Server message box. To handle these cases, 'DPconnect' may be set up in a way either to interrupt job processing and ask the operator how to proceed or to ignore the unimplemented statements.

  'DPconnect' supports jobs, which store the job ticket apart fom the print data in a separate file. (This is for instance also the case with print jobs for the Xerox DocuTech 135). Thus print data can stored (in advance) anywhere on an Océ PRISMAproduction Server print server. Then you only have to send the job tickets from a local server or from any remote client to the Océ PRISMAproduction Server print server via the LP protocol. These job tickets contain links to the stored print data. You can print the same data in different ways using different job tickets. The print data can be stored on local discs, on removable storage devices or on mounted network devices. Furthermore you can control via the job ticket if the print data should be deleted after printing or not.

  The following Xerox job ticket commands are used for this function:

  **ASCII-Jobticket**:

  'XRXsourceFile <full qualified Unix file path>' and
  'XRXdeleteSource True | False | Dir'

  **XPIF-Jobticket**:

  '<xpif-operation-attributes>'

'<document-uri syntax="uri"> full qualified Unix file path </document-uri>'
'</xpif-operation-attributes>'
See also the Xerox documentation on job ticket programming.

- **Receiving Print Jobs via HotDir**
  Job input via HotDir is possible in almost the same way as via LP input. Xerox jobt tickets are supported.
  Be aware that all Xerox job submitter programs mentioned above use the LP protocol and therefore they are not suitable to feed an Océ PRISMAproduction Server HotDir. So HotDir input may be used with custom designed print job submitter software, even if it takes advantage of Xerox Job tickets.

- **Highlight Color**
  The above mentioned print job generators may produce highlight color- or full color-jobs: If highlight color- or full color-PostScript-jobs are to be printed on a highlight color Océ printer color separation has to be activated for the Unity-RIP explicitly. Because the quality of color-separation depends on the print data the setting of the color-separation parameters has to be done manually in the job ticket template of the receiving LP input queue.

The following information of the **Xerox job tickets** is supported by Océ 'DPconnect':
- Number of copies and sorting (sheets or stacks)
- Print all job types (Standard, Signature, Booklet, 2-up, ...)
- Print page ranges
- Print simplex, duplex, duplex (tumble), can be modified within page ranges
- Page numbering (also with page ranges), header and footer, text boxes
- Definition of not printable margins
- Scaling of page images
- Image shift, can be modified within page range
- Rotation of images, can be modified within page ranges
- Beginning of a chapter (any pages can be forced to be front pages)
- Multioverlay of images on one page
- Input media for the document.
  Choose size, color, drilling, paper type, order count, weight and medium name
- Exception pages and selection of the input media (size, color, drilling, paper type, order count, weight and medium name) for these pages
- Insertion of cover and separator pages and selection of input media (size, color, drilling, paper type, order count, weight and medium name) for these pages
- Insertion of slip sheets and selection of input media (size, color, drilling, paper type, order count, weight and medium name) for these sheets
- All postprocessing options, depending on the postprocessing devices available for the Océ printer

- Paper postprocessing devices, which have an impact on the right edge of the paper. This is achieved by a 180° rotation of the print image on the page (as it is done with the Xerox DocuTech 6180) and using postprocessing devices, which have an impact on the left paper edge.
- Stapling on a defined position
- Definition of font name and font size for ASCII print jobs
- Definition of the orientation (Portrait/Landscape) for ASCII print jobs
- Accounting, sender name, receiver name
- Direct insert
- Highlight color, taken from page image data, not from job ticket
- Halftone screen setting
- Job message, Job start message
- Job name, Document name
- Printing of ordered media (for example tabulator sheets)
- LP-Input-Queue name. Redirection of the job to the indicated queue on the print server and processing according to the assigned ticket template.
- Support of job tickets for re-prints of print files which are already stored on the servers.

To match specific user requirements, translation rules, which control the transformation of the input job ticket to the Océ PRISMAproduction Server job ticket, can be modified using the **'DPconnect' translation table**. You can use the 'DPconnect'-user interface in the Océ PRISMAproduction Server 'Explorer' to set up or modify the appropriate parameters.

This GUI will be available on all servers of the Océ PRISMAproduction Server network as soon as a 'DPconnect' license is installed and activated at least on one of these servers. The 'DPconnect' converter however only runs on servers which actually process an activated 'DPconnect' license (Master).

'DPconnect' consists of a main module ('DPconnect') and a service module ('DPconnect' service). Both modules write a start- and finishing message which will be displayed in the Message window.

There is a combo box on the 'DPconnect' configuration user interface named 'Sort Order of Tabulator Media Sets:'. This is only valid for VarioPrint 51xx compatible printers and has to be set according to the sort order of an tabulator input media set actually loaded into the printer. According to this the page sequence of the whole job will be reverted by the Océ PRISMAproduction Server workflow if necessary.

For a description of the user interface see *"'DPconnect' User Interface - Overview"* on page 159

## Installation Requirements

'DPconnect' can be licensed as an optional module belonging to the POD language module. The following components are required for the installation of 'DPconnect':

- Océ PRISMAproduction Server POD-Module V4.0
- 'Professional Document Composer' V4.0
- 'Unity' or 'Unity+' (Graphic Arts Plus Workflow) V4.0
- PCL converter (only, if you want to print PCL data) V4.0

The installation procedure is only performed on an Océ PRISMAproduction Server master. It creates all required directories and files on the system.

After installation you have to configure the system.

# 'DPconnect' Configuration and Job Submission

## Configuration on the Océ PRISMAproduction Server Server

Insert the IP-address and name of the computer with the Xerox print job submitter in the file' /etc/hosts'.

Before you can use 'DPconnect', set up the following configuration using the Océ PRISMAproduction Server 'Explorer':

- Define at least one printer with at least one input bin and one output bin ('Configuration' -> 'Printers').
- Define at least one job queue ('Configuration' -> 'Job Queues'). 3 queues are predefined when Océ PRISMAproduction Server is shipped.
- Define at least one LP printer queue ('Configuration' -> 'Input Modules'). In this dialog box set up the following parameters:

| Parameter | Description |
|---|---|
| **Selected Profile** | Select one ticket template name from the combo box. These ticket templates can be found in the symbolic directory $JOBINPUT_TICKETS. The installation provides the following ticket template:<br>DPCONNECT.TIC<br>default, no printer post processing<br>Ticket templates in this directory, which have a leading dot before the name are read-only. You can create your own customized ticket from these tickets. To do this, you have to copy the template and save it without a leading dot in the same directory. You can use the PJM for the creation of new or the modification of existing tickets. A modifiable copy of .DPCONNECT.TIC is provided as DPCONNECT.TIC when installing the system (see *"'DPconnect' Hints for using Ticket Templates"* on page 177 and *"'DPconnect' Meaning of Job Ticket Template Entries"* on page 178). |
| **Program name for job submission** | Set this parameter to 'startdpconnect'. |

| Parameter | Description |
|---|---|
| **hosts.lpd** | The computer with the Xerox print job submitter has to be allowed to send print jobs to the Océ PRISMAproduction Server server. Do this by choosing the menu item 'Edit' -> 'Edit hosts.lpd' (on the 'Input Modules' tab in the Océ PRISMAproduction Server 'Explorer'). In the pop up dialog press the 'Add' button and in the column "Allowed systems" add the name of the DigiPath workstation. |

Now 'DPconnect' is able to translate Xerox job tickets to Océ PRISMAproduction Server job tickets.

## Configuration on the server with the Xerox print job submitter:

Insert IP address and name of the Océ PRISMAproduction Server server which is to receive DigiPath jobs in the file '<Windows-installpath>\system32\drivers\etc\hosts'. The different kinds of Xerox print job submitters have to be configured in the following way:

- **DigiPath / FreeFlow Makeready**
  On the Xerox-DigiPath-Workstation set up at least one symbolic printer with the following properties:

| Parameter | Description |
|---|---|
| **Print Server** | Name of the Océ PRISMAproduction Server Server. Insert the name only and not the IP-address! |
| **Print Queue** | One of the LP printer queues previously defined on the Océ PRISMAproduction Server server. |
| **Printer type** | Any printer type is allowed. The printer types mentioned in *"DPconnect' Functionality'* on page 147 are recommended. |
| **Server type** | Any server type is allowed. |
| **Print manager** | Any print manager is allowed. Standard production printing path is recommended. |
| **Network type** | TCP/IP |

- **Xerox-Printer Driver for Windows**
  The installation of Xerox printer drivers on a Windows systems has the following properties:

| Parameter | Description |
|---|---|
| **Printer port** | LPR port |
| **Name or address of the host, which provides LPD** | Name of the Océ PRISMAproduction Server server. |
| **Name of the printer connected to this computer** | One of the LP printer queues, which have been configured before in Océ PRISMAproduction Server. |
| **Printer** | Any printer type is allowed. The printer types mentioned in *"DPconnect' Functionality'* on page 147 are recommended. |

- **Xerox XDS**
  In the main window click the button 'Connections...' and click 'Add...' in the 'Printer connections' dialog to add a new symbolic printer.

| Parameter | Description |
|---|---|
| **Connection between the Xerox printer and the computer** | LPR over TCP/IP |
| **Server** | Name of the Océ PRISMAproduction Server server. |
| **Vitual printer** | One of the LP printer queues, which have been configured before in Océ PRISMAproduction Server. |
| **Type of the Xerox server** | Any of the server types mentioned in *"DPconnect' Functionality'* on page 147 are allowed. |

- **Xerox FreeFlow Print Manager**
  Open FreeFlow Print Manager printer registration and do the following settings:

| Parameter | Description |
|---|---|
| **Printer type** | Other Printer |
| **Printer protocol** | LPR printer with ASCII ticket profile or<br>LPR printer with XPIF ticket profile (recommended, is the most capable one) or<br>LPR printer without ticket profile. |

| Parameter | Description |
|---|---|
| **Hostname/IP-Address** | Name of the Océ PRISMAproduction Server server. |
| **Queue name** | One of the LP printer queues, which have been configured before in Océ PRISMAproduction Server. |
| **Device type** | Any printer type is allowed. The printer types mentioned in *"DPconnect' Functionality'* on page 147 are recommended. |

## Job Input via HotDir

Input type and HotDir configuration:

- **Data + Océ Custom Job Ticket (+ Triggerfile)**
  Possible Input: ASCII-, PCL-, PDF-, PostScript-, AFP (IOCA)- and TIFF-data with or without Xerox job ticket (same as for input via LP-input queue).
  Jobs without Xerox job ticket will be processed according assigned job ticket template, but ticket parameters provided by the custom job ticket (belongs to the job) override job ticket template parameters.
  Multiple input files per print job are allowed. All file data types mentioned above may occur in one single job. Specification for a converter for job files in the custom job ticket is not generally required, because 'DPconnect' itself determines file data types. Only in cases where DPconnect fails to determine a file type correctly or if you want to explicitly choose one certain converter out of several possible converters a converter specification is needed.
  If a job has more than one file, possibly existent Xerox job tickets in these files will be ignored. Xerox job tickets are honored only if the job has one single file.
- **DataFile**
  Possible Input: ASCII-, PCL-, PDF-, PostScript-, AFP (IOCA)- and TIFF-data with or without Xerox job ticket (same as for input via LP-input queue).
  Jobs without Xerox job ticket will be processed according assigned job ticket template.
- **Data + Triggerfile**
  Possible Input: ASCII-, PCL-, PDF-, PostScript-, AFP (IOCA)- and TIFF-data with or without Xerox job ticket (same as for input via LP-input queue). Jobs without Xerox job ticket will be processed according assigned job ticket template, but ticket parameters provided by input file name override job ticket template parameters.
  **File name parts**
  As print jobs processed by 'DPconnect' are PRISMA+POD jobs, only POD relevant ticket parameters are effective here.

In every case input data type will be determined automatically (same as for input via LP-input queue).

Processing:

- **Default Job Ticket**
  Choose one of the selectable job ticket templates.
- **PrgJobSubmission**
  Select "startdpconnect".
- **ExtractParameters**
  Choose "Off"

## Job Submission from Xerox Environment

### DigiPath / FreeFlow Makeready

After logging in on a DigiPath / FreeFlow Makeready workstation, the user will be asked for an ftp account, if he sends a job for the first time. This account has been set up on the Océ PRISMAproduction Server master to receive data from DigiPath / FreeFlow Makeready via ftp.

- User Id = xdt
- Password = xdt

If you want to print on an Océ PRISMAproduction Server system, you have to select the corresponding symbolic printer on the DigiPath / FreeFlow Makeready workstation. After this, you are able to send print jobs like a DigiPath / FreeFlow Makeready user does it.
DigiPath / FreeFlow Makeready consist of the program 'Document Scan and Makeready' (DSM) and QuickPrint. 'DPconnect' processes all jobs which have been generated by one of these programs. With DSM you can use either production printing or printing via printer drivers.

**Xerox Printer Driver for Windows**
With Xerox printer drivers you can send print jobs with Xerox features from all Windows applications.

**Xerox XDS**
Use XDS to create print jobs with Xerox features from any PostScript, PDF, PCL, ASCII, and TIFF files and send them for printing.

**Xerox FreeFlow Print Manager**
Use Xerox FreeFlow Print Manager to create jobs with Xerox features from any PostScript, PDF, PCL, ASCII and TIFF files and send them for printing.

**Standard LP Client**

You can use an LP Client to send print jobs without Xerox features. After receiving a Xerox-print job on an Océ PRISMAproduction Server system, it will be shown in the Océ PRISMAproduction Server 'Explorer' under 'All Jobs'.

# 'DPconnect' User Interface - Overview

## Introduction

The user interface of 'DPconnect' is integrated in the Océ PRISMAproduction Server 'Explorer' under 'Configuration'. The 'DPconnect' UI consists of three tabs for the job processing, the input ticket translation and the barcode functions. Before printing jobs via 'DPconnect', a target printer has to be selected.

## Toolbar and Menu 'Parameter' Functions

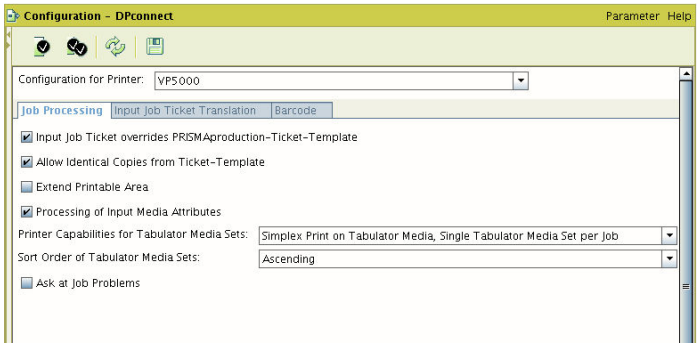
| Icon | Description |
|---|---|
| | 'Apply changes'<br>Save the values in the window to the database. |
| | 'Discard changes'<br>The values in the window are overwritten by the values stored in the database. |
| | 'Apply default setting for selected printer'<br>The translation table parameters of the selected printer are set to their default values and are stored in the database. |
| | 'Apply default setting for all printers'<br>The translation table parameters of all printers are set to their default values and are stored in the database. |

The user interface consists of the following tabs:

- 'Job Processing' Tab (see *"DPconnect''Job Processing' Tab'* on page 160)
- 'Data Processing Mode' Tab (see *"DPconnect' Data Processing Mode Tab'* on page 164)
- 'Input Job Ticket Translation' Tab (see *"DPconnect''Input Job Ticket Translation' Tab'* on page 172
- 'Barcode' Tab (see *"DPconnect''Barcode' Tab'* on page 174

# 'DPconnect"Job Processing' Tab

## Illustration




## 'Job Processing' Window

The following controls influence the way incoming print jobs are being processed:

| Item | Description |
|---|---|
| 'Input Job Ticket overrides PRISMAproduction-Ticket-Template' | **Checked**<br>The impositioning requested from the incoming job overrides the PDC-impsitioning which is probably set in the job ticket template assigned to the LP input queue over which the job was received.<br>**Unchecked**<br>The PDC-impsitioning which is probably set in the job ticket template assigned to the LP input queue over which the job was received overrides the impositioning requested from the incoming job. If you explicitly want to use a PDC-impsitioning which fits to a paper post processing attached to the printer you have to set this switch to off.<br>Default: Checked |
| 'Allow Identical Copies from Ticket-Template' | **Checked**<br>If identical copies are required in the ticket template assigned to the LP input queue over which the job was received, this mode will be printed even if 'Input Job Ticket overrides PRISMAproduction-Ticket-Template' is activated.<br>**Unchecked**<br>Indentical copies in the ticket template are ignored. All other Composer settings are also overwritten by the Xerox ticket<br>Default: Checked |

| Item | Description |
|---|---|
| 'Extend Printable Area' | **Checked**<br>This is only needed for print jobs having page images which are smaller than the size of the input medium which they are printed on, AND the page image has to be shifted. Under these circumstances it may happen that part of the page image is not printed. To advise 'DPconnect' to take care of this, check this box.<br>**Unchecked**<br>'DPconnect' does no special action.<br>Default: Unchecked |
| 'Processing of Input Media Attributes' | **Checked**<br>The media attributes in the Xerox ticket are supported and will be passed on to the printer.<br>**Unchecked**<br>The media attributes in the Xerox ticket are ignored. A default medium will be used instead. Default: Checked |
| 'Printer Capabilities for Tabulator Media Sets:' | 'Simplex Print on Tabulator Media, Single Tabulator Media Set per Job'<br>Choose this for Océ VarioPrint 51xx<br>'Duplex Print on Tabulator Media, Multiple Tabulator Media Sets per Job'<br>Choose this for Océ VarioPrint 6xxx<br>'Simplex Print on Tabulator Media, Multiple Tabulator Media Sets per Job'<br>Choose this for Océ VarioPrint 2110 and Xerox DocuTech 61xx<br>Default:<br>'Duplex Print on Tabulator Media, Multiple Tabulator Media Sets per Job' |
| 'Sort Order of Tabulator Media Sets:' | 'Ascending'<br>Use this setting if a tabulator media set is to be used, which is sorted in an ascending order.<br>'Descending'<br>Use this setting if a tabulator media set is to be used, which is sorted in a descending order.<br>Default: Ascending |

| Item | Description |
|---|---|
| 'Ask at Job Problems' | **Checked**<br>The job will be halted and the operator may watch the job inconsistencies in a message dialog started from the job view. Possible job problems are:<br>■ Collisions between cover pages and separator pages.<br>■ Collisions between cover pages and chapter starts.<br>■ Job requires tabulator media to be printed in duplex or tumble mode.<br>■ Job requires a media weight below 40 g/qm² or over 200 g/qm².<br>■ Job requires a specific printer postprocessing device connected to a specific printer output tray, but the device is not connected to that output tray.<br>■ Job requires a specific printer postprocessing device, but the device is not connected to the target printer.<br>■ Several different print media, which are ordered in a different way, are requested.<br>■ The PDC impositioning schema contains contradictive media requests for the whole document and/or for parts of the document.<br>■ A job ticket command was found which is not supported.<br>■ A print job requests being processed over an LP-Input-Queue, which does not exist.<br>The operator now is asked for the way he wants to proceed. There are two choices:<br>■ Press "Start" in order to let 'DPconnect' eliminate the problems and continue the job. |

| Item | Description |
|---|---|
| | Elimination of the problems means respectively:<br>■ Separator pages are ignored when colliding with cover pages.<br>■ Chapter starts are ignored when colliding with cover pages.<br>■ Tabulator media is being printed in simplex mode.<br>■ The media weight requirement is set to 40 g/m2 respective 200 g/m2.<br>■ The job is redirected to the output tray, which the required postprocessing is connected to.<br>■ The required printer postprocessing is being ignored for this job.<br>■ The ordered material, which has been requested first, will be used as well for all other requests for ordered material.<br>■ Only the first request for print material, which is valid for the whole document, is considered.<br>■ The job ticket command is ignored.<br>■ The print job is processed according to the ticket template, which belongs to the receiving LP-Input-Queue.<br><br>**Unchecked**<br>No message is generated for the job view ('All Jobs'). 'DPconnect' eliminates the problems automatically and continues the job.<br>Default: Unchecked |

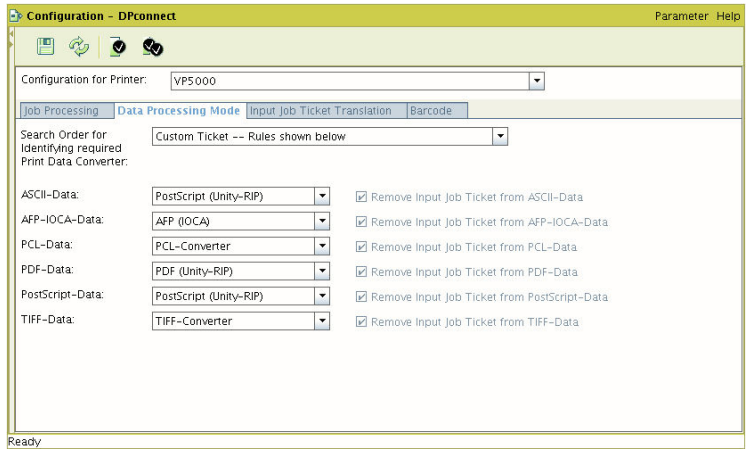
*Note:*
If a job problem occurs, always a message is generated for the message window.

# 'DPconnect' Data Processing Mode Tab

## Introduction

The data processing mode describes the way how the different types of print data are to be converted.

## Illustration




## Data Processing Window

| Item | Description |
|---|---|
| 'Search Order for Identifying re-quired Print Data Converter:' | |

| Item | Description |
|---|---|
| | Choose search order for identifying the required print data converter. The required converter can be obtained from the following information sources:<br>■ Océ Custom Ticket, which is generated for each job when it was received via the 'LP' or 'HotDir' channel.<br>■ Ticket template, which is assigned to the receiving 'LP' or 'HotDir' channel.<br>■ Rules shown below.<br><br>The following choises for this combo box describe in which order the above mentioned information sources are searched:<br>■ 'Custom Ticket -- Ticket Template -- Rules shown below'<br>First search the custom ticket for a converter setting.<br>If there is none, search the ticket template for a converter setting.<br>If there is none, take te rules shown below.<br>■ 'Custom Ticket -- Rules shown below'<br>First search the custom ticket for a converter setting.<br>If there is none, take the rules shown below.<br>■ 'Ticket Template -- Rules shown below'<br>First search the ticket template for a converter setting.<br>If there is none, take the rules shown below.<br>■ 'Rules shown below'<br>Take the rules shown below.<br><br>Default: 'Custom Ticket -- Rules shown below'<br><br>*Note:*<br>Application of the rules shown below requires that 'DPconnect' can properly determine type of the received print data. |

| Item | Description |
|---|---|
| 'ASCII-Data:' | ■ 'PostScript (Unity-RIP)'<br>ASCII data are converted to PostScript code by 'DPconnect'. During job processing they are afterwards converted into AFP code with embedded TIFF containers by the UnityRIP. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'PostScript (Graphic Arts Plus)'<br>ASCII data are converted to PostScript code by 'DPconnect'. During job processing they are afterwards converted into AFP code with embedded PDF containers by the Graphic Arts Plus Normalizer.<br>■ 'Do not convert (RAW)'<br>ASCII data are not converted either by 'DPconnect' or during job processing afterwards. The data can be printed via a generic backend.<br>Default: PostScript (Unity-RIP). |
| 'Remove Input Job Ticket from ASCII-Data' (only relevant for RAW processing) | ■ Active:<br>A possibly existing Xerox job ticket preceeding the data is removed.<br>■ Not active:<br>A possibly existing Xerox job ticket preceeding the data is not removed.<br>Raw data (with or without Xerox job ticket) can be printed on Xerox printers or via Océ PRISMAproduction Server with 'DPconnect'. |
| 'AFP-IOCA-Data:' | ■ 'AFP (IOCA)'<br>AFP-IOCA data are not converted. The generated data can be printed via an IPDS or a PostScript backend.<br>■ 'Do not convert (RAW)'<br>AFP-IOCA data are not converted. The generated data can be printed via an IPDS or a PostScript backend. The generated data cannot be imposed with the PDC or be stored as AFP overlays.<br>Default: 'AFP (IOCA)'. |

| Item | Description |
|---|---|
| 'Remove Input Job Ticket from AFP-IOCA-Data' (only relevant for RAW processing) | ■ Active: A possibly existing job ticket preceeding the data is removed.<br>■ Not active: A possibly existing job ticket preceeding the data is not removed. Raw data (with or without Xerox job ticket) can be printed on Xerox printers or via Océ PRISMAproduction Server with 'DPconnect'. |
| 'PCL-Data:' | ■ 'PCL-Converter' During job processing PCL data are converted into AFP code with embedded TIFF containers by the PCL-Converter. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'Do not convert (RAW)' PCL data are not converted. The data can be printed via a generic backend.Default: PCL-Converter.<br>Default: 'PCL-Converter'. |
| 'Remove Input Job Ticket from PCL-Data' (only relevant for RAW processing) | ■ Active: A possibly existing job ticket preceeding the data is removed.<br>■ Not active: A possibly existing job ticket preceeding the data is not removed. Raw data (with or without Xerox job ticket) can be printed on Xerox printers or via Océ PRISMAproduction Server with 'DPconnect'. |
| 'PDF-Data:' | ■ 'PDF (Unity-RIP)' During job processing PDF data are converted into AFP code with embedded TIFF containers by the Unity-RIP. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'PDF (Graphic Arts Plus)' During job processing PDF data are converted into AFP code with embedded PDF containers by the Graphic Arts Plus Normalizer. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'Do not convert (RAW)' PDF data are not converted. The data can be printed via a generic backend.<br>Default: 'PDF (Unity-RIP)'. |

| Item | Description |
|---|---|
| 'Remove Input Job Ticket from PDF-Data' (only relevant for RAW processing) | ■ Active: A possibly existing job ticket preceeding the data is removed.<br>■ Not active: A possibly existing job ticket preceeding the data is not removed. Raw data (with or without Xerox job ticket) can be printed on Xerox printers or via Océ PRISMAproduction Server with 'DPconnect'. |
| 'PostScript-Data:' | ■ 'PostScript (Unity-RIP)' During job processing PostScript data are converted into AFP code with embedded TIFF containers by the Unity-RIP. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'PDF (Graphic Arts Plus)' During job processing PostScript data are converted into AFP code with embedded PDF containers by the Graphic Arts Plus Normalizer. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'Do not convert (RAW)' PostScript data are not converted. The data can be printed via a generic backend.<br>Default: 'PostScript (Unity-RIP)'. |
| 'Remove Input Job Ticket from PostScript-Data' (only relevant for RAW processing) | ■ Active: A possibly existing job ticket preceeding the data is removed.<br>■ Not active: A possibly existing job ticket preceeding the data is not removed. Raw data (with or without Xerox job ticket) can be printed on Xerox printers or via Océ PRISMAproduction Server with 'DPconnect'. |
| 'TIFF-Data:' | ■ 'TIFF-Converter' During job processing TIFF data are converted into AFP code with embedded TIFF containers by the TIFF-Converter. The generated data can then be printed via an IPDS or a PostScript backend.<br>■ 'Do not convert (RAW)' TIFF data are not converted. The data can be printed via a generic backend.<br>Default: 'TIFF-Converter'. |

| Item | Description |
|---|---|
| 'Remove Input Job Ticket from TIFF-Data'<br>(only relevant for RAW processing) | ■ Active:<br>A possibly existing job ticket preceeding the data is removed.<br>■ Not active:<br>A possibly existing job ticket preceeding the data is not removed. Raw data (with or without Xerox job ticket) can be printed on Xerox printers or via Océ PRISMAproduction Server with 'DPconnect'. |

## When to use which Information Source?

- 'Rules shown below'
  If the 'Rules shown below' are used to identify the desired converter, this implies that 'DPconnect' is able to determine the data type correctly. If this is not possible, another source (custom ticket, ticket template) has to be used. If custom ticket or ticket template do not provide sufficient information, the 'Rules shown below' are the recommended information source.
- 'Océ Custom Ticket'
  The job-specific custom tickets, which are generated by the Input Modules ('HotDir' and 'LP') usually do not indicate a converter which is to be used. Only if the job generator sends an OCT file (custom ticket) with the print data to a HotDir, possibly a converter statement exisits - the job generator may add this statement, but not necessarily.
  The custom ticket can only provide converter statements on 'HotDir' reception. These make sense, if the data types change from job to job and the data type recognition of 'DPconnect' doesn't work properly.
  Furthermore this method allows you to select a defined converter out of a number of possibilities (for example Graphic Arts Plus Normalizer instead of Unity-RIP foor PostScript data).
- 'Ticket Templates'
  Ticket templates usually contain a converter statement. But in cases when jobs with different data types have to be processed, this statement is not useful, because the converter statement of the ticket template is often incorrect.
  The converter statement in ticket templates is useful if the data type doesn't change, if jobs are to be received also via LP protocol and if the data type recognition of 'DPconnect' doesn't work properly.
  Furthermore this method allows you to select a defined converter out of a number of possibilities (for example Graphic Arts Plus Normalizer instead of Unity-RIP foor PostScript data).

## Jobs Consist of Multiple Print Files

Via 'HotDir' jobs with multiple print files can be received. In this case, the followng restrictions exist:

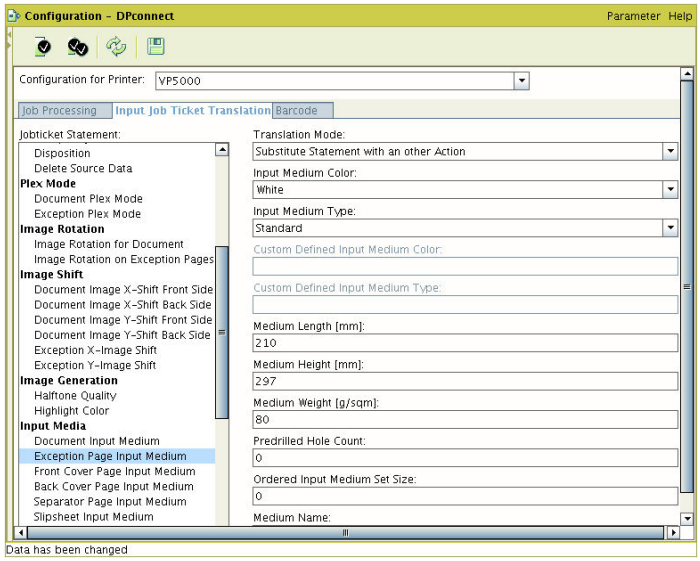
- The RAW processing of jobs which contain multiple files with preceeding job ticket is not allowed, because these job tickets may contradict eachother.
- The RAW processing of jobs which contain multiple files of different data types is not allowed, because the subsequent processing of such mixed data is not reasonable.

## PostScript Jobs with External Files

The RAW processing of PostScript jobs with external files is not allowed, because the further transport of all files which belong to the job is not possible with the Océ PRISMAproduction Server backend.

# 'DPconnect"Input Job Ticket Translation' Tab

## Illustration




## Controls for the translation table

| Item | Description |
|---|---|
| 'Configuration for Printer:' | Select the **printer** or the **cluster**, for which the translation rules in this dialog should be valid. Printer groups <Any xxx dpi Printer> are also presented in the list. |
| 'Jobticket Statement:' | Define, for which **input jobticket statement** a translation mode should be created using the control elements on the right side of this window. The control elements shown depend on the selected statement, that is they depend on the number and kind of the available parameters. Controls which are not available for a statement are not visible. |

| Item | Description |
|---|---|
| 'Translation Mode:' | 'Translate Statement directly'<br>The statement is processed in the same way it would be processed on a Xerox printer.<br>'Substitute Statement with an other Action'<br>The data (argument values) required for this statement are taken from this translation table settings.<br>'Substitute Statement with LP Input Queue Template Action'<br>The data (argument values) required for this statement are taken from an LP input queue template. This is the template assigned to that LP input queue over which the jobs are being received. It is recommended that this template uses the same destination printer that is actually selected here in the translation table.<br>'Ignore Statement'<br>The action done in this case depends on the statement itself (see table in the appendix): Some statements are completely omitted, others are processed with the Océ PRISMAproduction Server system default settings instead.<br>Default: The defaults depend on the statements. |

**Controls for translation rules input**

You can set up the parameters using up to two selection boxes and up to seven edit fields underneath. Only those controls are visible, which are required for the selected statement. The descriptive labels above the controls change according to the selected statement:

For a full description of all ticket statments and their possible values see *"DPconnect' Appendix'* on page 196

# 'DPconnect"Barcode' Tab

The barcode controls shown below have been added to the 'DPconnect' configuration user interface:

'DPconnect' prints the job name of the incoming print job or a free defined text as barcode on a document page or on an added blank sheet - either before or behind the document.

To activate this 'DPconnect' barcode a new complete barcode statement has to be put into the used LP input queue ticket template. The barcode settings can be found in the PJM user interface in the Composer window under 'Marks -> Barcode'. All barcode parameters have to be specified here (for example: position, height, width, etc.). 'DPconnect' will recognize this barcode statement and then it will replace the barcode string (which functions here as a place holder) with that string obtained from the source selected with the barcode controls. So 'DPconnect' has to distinguish between "normal" barcode statements which have to be processed as they are and this special 'DPconnect'-place-holder-barcode statement for which the barcode string has to be modified. In order to let 'DPconnect' recognize this special 'DPconnect'-barcode statement it has to meet some requirements:

| Item | Required Value | Description |
|---|---|---|
| Barcode type | Code 39 | mandatory |
| Number of fields | 11 | place holder, will be replaced by 'DPconnect' with actual data |
| Field range | 1 - 11 | place holder, will be replaced by 'DPconnect' with actual data |
| Data type | constant string | mandatory |
| Content | +DPCONNECT+ | place holder, will be replaced by 'DPconnect' with actual data |

*Note:*
Remember that if any of the above requirements is absent this barcode statement will become a normal barcode statement and will be printed in every case (with the place holder string if present) regardless of the settings of the 'DPconnect' barcode controls. The 'DPconnect'-Barcode of course is completely independent from any other "normal" barcode statement defined in the LP input queue assigned job ticket template. So a 'DPconnect'-Barcode may be combined with any other barcode statement.

The 'DPconnect'-Barcode controls function as follows:

| Item | Description |
|---|---|
| 'Source of DPconnect-Barcode:' | **None**<br>'DPconnect'-Barcode is switched off. Neither job name nor Barcode Text is printed as barcode. A 'DPconnect'-Barcode statement defined in the LP input queue assigned job ticket template has no effect. All the other barcode statements in this ticket template will be processed.<br>**Job Name**<br>The job name of the incoming job is printed as barcode.<br>**Barcode**<br>Text The text in the edit field "Barcode Text" is printed as barcode.<br>Default: None |
| 'Begin of the Job Name Section:' | When the source is Job Name it is possible to select a section out of the whole job name string to be used. This edit field specifies the position of the first character of the section. |
| 'End of the Job Name Section:' | When the source is Job Name it is possible to select a section out of the whole job name string to be used. This edit field specifies the position of the last character of the section. |
| 'Barcode Text:' | When the source is Barcode Text this text has to be entered here. |
| 'Add a Barcode Sheet:' | **Add no Extra Sheet**<br>'DPconnect'-Barcode will be printed on a document page. The desired page number has to be specified in the 'DPconnect'-Barcode-statement in the LP input queue assigned job ticket template.<br>**Add Extra Sheet Before Document**<br>'DPconnect'-Barcode will be printed on an extra sheet added before the document. The front page of this sheet is accessed with page number 1, the back page with number 2. The desired page number has to be specified in the 'DPconnect'-Barcode-statement in the LP input queue assigned job ticket template.<br>**Add Extra Sheet Behind Document**<br>'DPconnect'-Barcode will be printed on an extra sheet added behind the document. The front page of this sheet is accessed with page number n-1, the back page with number n. The desired page number has to be specified in the 'DPconnect'-Barcode-statement in the LP input queue assigned job ticket template. Default: Add no Extra Sheet |

*Note:*
When using an added barcode sheet the resulting page numbering range for barcode positioning - which is from 1 to n - extends over all - the original document pages, any inserted blank pages or blank sheets and the added barcode sheets.

*Note:*
Barcode type code 39 is being used. Allowed characters are: A-Z, 0-9, the following characters inside the double quotes "-.$/+%" and the blank character. The Barcode Text edit field restricts input to this character set. For the incoming job name lower case characters are converted to upper case, all other forbidden characters are substituted by a period.

# 'DPconnect' Hints for using Ticket Templates

For those statements which provide an alternative action this action either is described by a translation table entry or by a ticket template entry. So a complete set of alternative actions consists of two parts, one from the translation table settings and one from the LP input queue assigned ticket template settings.

Please pay attention to this:

- Each printer which is defined in Océ PRISMAproduction Server should be assigned one translation table.
- Each LP input queue which is defined in Océ PRISMAproduction Server should be assigned one Océ PRISMAproduction Server job ticket template.

The destination printer for a print job is specified by the printer name entry in the ticktet template of that LP input queue which receives the print job. For 'DPconnect' jobs this printer name entry also specifies the translation table to be used with this job. And finally this translation table says which entries in the specified ticket template are to be used for alternative action.

So the best way to handle with 'DPconnect' translation tables and LP input queue ticket templates is the following one:

Let 'DPconnect' create one translation table for each printer in Océ PRISMAproduction Server. (This is done by 'DPconnect' automatically and can not be inhibited.) Define one LP input queue for each printer in Océ PRISMAproduction Server and assign a ticket template to it which holds as destination printer name the name of that printer which it belongs to. For each printer do the appropriate adjustments both to the translation table and the ticket template so that they suit to the printer and to its printer post processing. For example the printer attached postprocessing machine requires a specific PDC impositioning and a specific UP³I setting, both has to be set up in a ticket template. After doing this each printer is accessible through his LP input queue and jobs printed through this input queue on each of these printers are printed in a way that represents the printers capabilities and the attached printer post processing capabilities.

In order to take advantage of these different Océ PRISMAproduction Server print paths from within Xerox DigiPath you should act as follows: For each Océ PRISMAproduction Server print path (LP input queue, ticket template, printer, postprocessing) you are going to use with DigiPath define a logical printer (in terms of Xerox DigiPath), that is, the destination of each of these logical printers is one of the LP input queues on the Océ PRISMAproduction Server print server (see *"LP"* on page 508). Now you are able to print all DigiPath documents with that kind of job processing and printer postprocessing you want - just by choosing the right DigiPath logical printer.

# 'DPconnect' Meaning of Job Ticket Template Entries

The importance of the LP input queue assigned job ticket templates is in 'DPconnect' version 1.02 much higher than in version 1.00. In conjunction with DPconnect translation tables these templates now fully work as a container for almost all 'DPconnect' print job properties. Because of this the 'DPconnect' V1.00 Startparameter GUI is not longer necessary since these startparameter settings are now to be done in the job ticket template. Use the PJM-GUI for editing the job ticket templates. Startparameter GUI controls for setting diagnostic functions have been moved to a new command line diagnostic program (see *"DPconnect' Maintenance Programs"* on page 193).

In principle an Océ PRISMAproduction Server job property can be supplied with the Xerox DigiPath job ticket or with the LP input queue ticket template or with both of them. The table below shows this in detail.

Some few properties have an entry in column 'DPconnect', this means that 'DPconnect' sets the value of the entry, which cannot be modified.

A mark in column "Input -Ticket" means that this property may be delivered with the Input job ticket. If the corresponding switch in the 'DPconnect' translation table is set to "Translate Statement directly" this property will be processed as it is. If there is a mark too in column "Template" and the corresponding switch in the 'DPconnect' translation table is set to "Substitute Statement with LP Input Queue Template-Action" the value of this property will be taken from the LP input queue template instead from the Input job ticket.

There are several properties which only can be supplied from the input job ticket, so these properties are always taken from there.

There are several properties which only can be supplied from the LP input queue-template, so these are always taken from there.

*Note:*
Those LP input queue/HotDir template properties which have no mark in the column "Template" or don't appear in the following table at all don't have any effect when processing 'DPconnect' jobs so it's not necessary to set them at all.

| Océ PRISMAproduction Server Ticket | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|
| **Menu Ticket** | | | |

| Océ PRISMAproduction Server Ticket | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|
| New | | | | | = POD-Ticket |
| **Menu Job** | | | | | |
| **Transfer Mode**<br>All settings available here | | | | X | |
| **Information** | | | | | |
| | **User** | | | | |
| | | Name | X | X | |
| | | Company | | X | |
| | | City | | X | |
| | | Street | | X | |
| | | Zip Code | | X | |
| | | Country | | X | |
| | | Country | | X | |
| | | Tel. | | X | |
| | | Fax | | X | |
| | | Add.Info | | X | |
| | **Receiver** | | | | |
| | | Name | X | X | |
| | | Company | | X | |
| | | City | | X | |
| | | Street | | X | |
| | | Zip Code | | X | |
| | | Country | | X | |
| | | Tel. | | X | |
| | | Fax | | X | |
| | | Add.Info | | X | |
| | **Shipment** | | | | |
| | | Account | X | X | |

| Océ PRISMAproduction Server Ticket | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|
| | | Shipment Info | | X | |

| Océ PRISMAproduction Server Ticket | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|
| **GUI: Job Parameter** | | | | | |
| | Job Name | | X | X | |
| | Copies | | X | X | |
| | Printer | | | X | |
| | Job Queue | | | X | |
| **GUI: Job Attributes** | | | | | |
| **Message** | | | | | |
| | Inform operator only | | | X | |
| | Hold job until operator confirmation | | | X | |
| | Message text | | X | X | |
| **Store**<br>All settings available here | | | | X | |
| **Print** | | | | | |
| | Print Range | | X | | = all |
| | Form | | | X | |
| | Input Tray | | | X | |
| | Output Tray | | | X | |
| | Proof Print | | | X | |
| | Print Mode<br>All settings available here | | | X | |
| | Color Selection<br>All settings available here | | X | X | |
| | Tab Printing | | | | |
| | | Tab Printing | X | X | |

| Océ PRISMAproduction Server Ticket | | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|---|
| | | Tab Set | | | X | |
| | | Explicit | | | | = no |
| | | | Positions | X | | = none |
| | | | Resource | | | = none |
| | | From Print Data | | | | = yes |
| | | From Print Data using Size of Tab Pages | | | | = no |
| | UP3I Devices<br>All settings available here | | | | | |
| **Header/Trailer** | | | | | | |
| | All settings available here | | | | X | |
| **Events** | | | | | | |
| | Start Job Events | | | | | |
| | | All settings available here | | | X | |
| | Start Print Events | | | | | |
| | | All settings available here | | | X | |
| **Notification** | | | | | | |
| | All settings available here | | | | X | |
| **Custom Settings** | | | | | | |
| | Nr. 1 | | | X | | |
| | Nr. 2 - 20 | | | | X | |

| Océ PRISMAproduction Server Ticket | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|
| **List of Files** | | | | |
| **Format** | | X | | |
| **Collect** | | | | |
| | Collect Mode | | | = no |

| Océ PRISMAproduction Server Ticket | | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|---|
| | Index Range | | | | | = none |
| | Allow gaps in index sequence | | | | | = no |
| **Convert** | | | | | | |
| | Use Paper Size | | | | | = no |
| | Use Medias from Document | | | | | = yes |
| | Paper size | | | | | |
| | | Name | | X | | |
| | | Size X | | X | | |
| | | Size Y | | X | | |
| | | Unit of Measure | | | | = cm |
| | Page Layout<br>All settings available here | | | X | X | |
| | Use Media based Tray Selection<br>All settings available here | | | | | = no |
| | Substitute missing Fonts | | | | X | |
| | PCL-Mode | | | | | = Edge to Edge |
| **Compose** | | | | | | |
| | No Composing | | | | | = no |
| | Compose files before chaining | | | | | = yes |
| | Chain files before composing | | | | | = no |
| | Set | | | | | = no |
| | Store Job Ticket with linked Set | | | | | = no |
| **Professional Document Composer** | | | | | | |
| | **Menu Options** | | | | | |
| | | | Create page segments | | X | |
| | | | Load page segments before print | | X | |
| | | | Stitch | | X | |

| Océ PRISMAproduction Server Ticket | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|
| | **Integrate** | | | | |
| | | Highlight Color<br>All settings available here | | X | |
| | | Merge<br>All settings available here | | X | |
| | | Cropping<br>All settings available here | | X | |
| | | Overlays<br>All settings available here | | X | |
| | | Variable Data<br>All settings available here | | X | |
| | **Impose** | | | | |
| | | Impose<br>All settings available here | X | X | |
| | | Signature<br>All settings available here | | X | |
| | **Assemble** | | | | |
| | | Positioning<br>All settings available here | X | X | |
| | | Creep<br>All settings available here | | X | |
| | | Blank Sheets<br>All settings available here | X | X | |
| | | Marks<br>All settings available here | | X | |
| | | Input Trays<br>All settings available here | X | X | |
| | | Print Range<br>All settings available here | X | | |
| **Halftone**<br>All settings available here | | | | X | |
| **Custom Tone** | | | | | |

| Océ PRISMAproduction Server Ticket | | | Input-Ticket | Template | 'DPconnect' |
|---|---|---|---|---|---|
| | No Custom Tone | | X | X | |
| | Spot Color Filter | | | | |
| | | Red | X | X | |
| | | Green | X | X | |
| | | Blue | X | X | |
| | Options<br>All settings available here | | | X | |
| | Primary Color Filter<br>All settings available here | | | X | |
| **Unity** | | | | | |
| | Workflow<br>All settings available here | | | X | |
| | Image Generation<br>All settings available here | | | X | |
| | Scale<br>All settings available here | | | X | |
| | Input Trays<br>All settings available here | | | | = none |
| | Use Paper Name as RIP Color | | | | = no |
| | Use Paper Name as RIP Type | | | | = no |

## Important Settings:

**Automatic Start of the TrueProof Browser**

The TrueProof Browser will be opened automatically, showing a list of 'printed' jobs on the connected TrueProof server, if all of the following conditions are true:

- The 'DPconnect' service module has finished successfully.
- Destination printer has the printer model "TrueProof".
- Destination printer is none of the <Any xxx dpi Printer> printer group.
- The ticket template job attributes request the action "Print".

**Using Printer Clusters**
In the "Job Parameter / Printer"-dialog you may also select a printer cluster. In this case 'DPconnect' takes required printer properties from the first printer in this cluster. In the printer list of the 'DPconnect' translation table you can also see printer cluster, which allows you to define translation rules also for these clusters.

**Presentation of Job Problems**
Problems with a job are either the result of contradictions in the input job ticket, or of requirements in the input job ticket, which cannot be fulfilled by the currebt Océ PRISMAproduction Server system. 'DPconnect' provides automatic procedures to solve both types of problems (see 'Job Processing Tab').
Job problems can be discovered either during the 'DPconnect' start step or during the 'DPconnect' service step. In both cases the job is interrupted.

In the job list the job is marked with **<Icon>**. Double click on it to read the associated message for details on the problem. If the job has been interrupted by the 'DPconnect' start step, you can continue it with the rerspective button in the message box. If the job has been interrupted by the DPconnect service step, you must click the 'Continue' button in the tool bar.
In the message boxes you are asked to confirm the solution for the problem, which 'DP-connect' proposes automatically. This avoids unexspected results in the output.
The original job messages are issued together with the 'DPconnect' problem messages. If the job is processed to the end, the 'DPconnect' messages are deleted and only the original job messages remain in the message window.

**Setting of Printer Input and Output Trays**
The effective setting of the printer input trays and output trays depends on the settings in the PJM GUI 'Job Attributes' / 'Print' / 'Input Tray', 'Output Tray' and the settings in a potential PDC impositioning scheme:

- Setting of Printer Input and Output Trays The effective setting of the printer input trays and output trays depends on the settings in the PJM GUI 'Job Attributes' / 'Print' / 'Input Tray', 'Output Tray' and the settings in a potential PDC impositioning scheme:
- Using a PDC impositioning scheme: Input and output tray control is always disabled. If input tray selection is set to "Default" the effective input- and output tray selection is taken from the PDC impositioning scheme. If input tray selection is not set to "Default" the effective input- and output tray selection is as selected here.

**Using UP³I Devices**
Each UP³I device is connected to a specific output tray of the printer. This connection has to be configured in the printer configuration. To do this open the "Printers" node in the Océ PRISMAproduction Server Explorer tree. Select the appropriate printer and open the "Output Devices" tab. Here set the correct number of output trays and specify their

physical numbers. Double click the type column of that output tray the UP³I device is connected to. Then select the required device out of the shown list.
To put this device into a template in order to make it a job processing property open the appropriate job ticket template with the PJM GUI and then open the "Job Attributes / Print"-dialog. Here select that output tray to which the UP³I device is connected to. By doing this the "UP³I Devices"-button becomes active. Clicking on this button opens a configuration dialog appropriate to the attached UP³I device. You may do here some device specific settings.
Generally in a 'DPconnect' environment there are two sources for Up³I postprocessing requests:

- Input job ticket
- Job ticket template.

The available 'DPconnect' translation rules for all printer postprocessing requests are the same:

- Translate Statement directly
- Substitute Statement with an other Action:
  - Apply to all Jobs
  - Apply to Jobs requiring <certain postprocessing> only
- Ignore Statement

Because there are interdependencies between translation rules for different postprocessing requests, the determination of the resulting printer postprocessing is based on the rules shown in the following table:

| Resulting Printer Postprocessing | Condition |
|---|---|
| No postprocessing at all | For each postprocessing request the following is valid:<br>■ Translation mode is **Ignore Statement**.<br>OR<br>■ Translation mode is **Translate Statement directly**.<br>AND<br>The corresponding postprocessing request is NOT present in the input ticket.<br>OR<br>■ Translation mode is **Substitute Statement with an other Action.**<br>AND<br>"Apply to Jobs requiring <certain postprocessing> only" is set.<br>AND<br>The corresponding postprocessing request is NOT present in the input ticket. |
| Only postprocessing taken out of the ticket template | Rule no. 1 does not apply AND for at least one postprocessing request the following is valid:<br>■ Translation mode is **Substitute Statement with an other Action**.<br>AND<br>"Apply to all Jobs" is set.<br>OR<br>■ Translation mode is **Substitute Statement with an other Action**.<br>AND<br>"Apply to Jobs requiring <certain postprocessing> only" is set.<br>AND<br>The corresponding postprocessing request is present in the input ticket. |
| One or more directly translated postprocessing out of the input job ticket | Rules no. 1 **AND** 2 do not apply **AND** for at least one postprocessing request the following is valid:<br>■ Translation mode is **Translate Statement directly.**<br>AND<br>The corresponding postprocessing request is present in the input ticket. |

*Note:*
If there are two postprocessing requests, one being translated directly, one being substituted by a ticket template action, the directly translated request is being ignored and only the substituted request becomes effective.
There is a check made to find out whether the resulting postprocessing does match the UP³I postprocessing settings of the selected output tray of the destination printer. This ensures that only those UP³I postprocessing requests, which are really available, become effective. If the check fails a job problem message is attached to the job and the operator will be asked how to proceed.

**Using PDC Stitch command**
There is a non UP³I stitch command which may be put into a LP input queue ticket template. This stitch command may be used for simple stitch devices which do not understand UP³I commands. On the logical level in Océ PRISMAproduction Server this command may be combined with any other UP³I postprocessing settings in the ticket template. The customer has to decide if doing so fits the requirements of his postprocessing devices. This command is invoked in the PJM-GUI by clicking the "Edit Compose Options"-button. A new dialog window named "Properties for new files" opens. Select here the "Compose"-tab, then select the "Compose file before Chaining"-radio button, uncheck the "Store job ticket with linked set"-check box and then press the right most button to open the "Professional Document Composer"-window. Open the "Options"-menu and check the "Stitch"-check box.
The PDC-stitch command becomes effective under the same conditions as all the other UP³I commands in the ticket template are effective. That is, if the translation rules for one of the postprocessing requests in the input ticket require to take a UP³I postprocessing out of the ticket template, the PDC stitch command - if available in the ticket template - will be performed too.

**Using PDC Impositioning Schemes**
If you have defined a PDC impositioning scheme in the job ticket template that is assigned to that LP input queue which is receiving the print jobs, this impositioning scheme may contradict the impositioning required by the incoming job. The decision on which impositioning overrides the other one is made in the 'DPconnect' configuration GUI with the check box "Input Job Ticket overrides Océ PRISMAproduction Server Ticket". In case the PDC impositioning scheme should take effect this check box has to be switched off. If the incoming job impositioning should take effect this check box has to be switched on.

# 'DPconnect' Configuration Example

## Introduction

If configuring LP input queues, printers, printer-postprocessing combinations in Océ PRISMAproduction Server as well as defining logical printers on the DigiPath, you have to take care of some assignment rules. These help to avoid operating errors and cause a simplification of workflows. The following figure shows an example on how to achieve a reasonable assignment: It shows three different printers (1, 2, 3) on which print jobs from DigiPath can be printed in five different alternatives.

**General**

The LP input queues serve as input channels for the DigiPath print jobs. Every input queue is dedicated an own ticket template. This template contains information on how the print jobs received via this queue should be printed (for example booklet-print).
Printers are the receivers of the print jobs. Each printer is assigned a 'DPconnect' translation table. This table contains information on how the input job requirements should be represented in Océ PRISMAproduction Server. In this example the translation rules are left at their default settings (direct translation) and have therefore no further importance. The example also contains general information on the processing mode of incoming jobs (for example the input tray selection mode).
LP input queue and 'DPconnect' translation table represent a pair which together represents the complete set of print processing rules.
As you can see from this example, the number of ticket templates does not necessarily have to be the same as the number of 'DPconnect' translation tables. Only one assigned translation table can be effective for a specified printer, however more than one ticket template can be effective for this printer (in the example printer 1 is driven by translation table 1 and ticket template 1 or ticket template 2). To see which translation table is used together with which ticket template(s) for a specified printer, you have to display the assigned translation table by selecting the respective printer on the 'DPconnect' UI. Additionally you have to find the ticket template, which contains as name of the target printer the name of this printer.

## Example

The example shows the following situation:

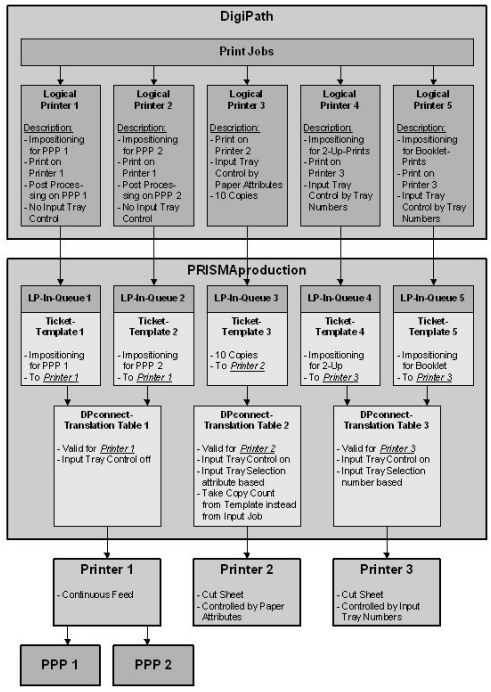
- Printer 1 is a continuous feed printer, which should print in two different ways: it should either drive paper post processing PPP 1 or PPP 2. Both PPPs need different impositioning schemes.
- Printer 2 is a cut sheet printer, which is driven in 1-up mode. The input bins are selected by media attributes. 10 copies are to be printed of every job - independent of the copycount set in the input ticket.

- Printer 3 also is a cut sheet printer. It's input bins are selected by bin numbers. Documents are to be printed in 2-up mode or booklet mode, thus different impositioning schemes are required.

To easily select these print functions from DigiPath you have to do the following:

- It is supposed that printer 1, 2, and 3 and the PPP 1 and 2 are installed and configured. DPconnect translation tables 1, 2, and 3 are set up automatically with practical default values.
- 'DPconnect' translation tables 1, 2, and 3 have to be modified to match the requirements of the example. In translation table 2 the translation mode for the copy count has to be modified from 'Translate Statement directly' to 'Substitute Statement with LP Input Queue Template Action'. Thus the copy count 10 in ticket template 3 will be effective.
- Queue Template Action'. Thus the copy count 10 in ticket template 3 will be effective. You have to set up ticket templates 1, 2, 3, 4 and 5 and to modify them according to the requirements of the example (Templates 1, 2, 4, and 5 need a PDC impositioning scheme, copy count in template 3 has to be 10). Take care that the correct target printer is indicated in every template. The tempate names should reflect the function of the tickets.
- Set up LP input queues 1, 2, 3, 4 and 5. These queues necessarily have to start the program 'startdpconnect'. Assign the corresponding ticket templates to these queues. The queue names should reflect their function.
- Set up the five logical printers in DigiPath. Each of these logical printers represents a defined print function in Océ PRISMAproduction Server. Therefore you have to connect the printers with the LP input queues of the Océ PRISMAproduction Server system.

Example for Assignments between logical DigiPath-Printers, PRISMA-LP-Input-Queues and physical Printers




## Comparison

There might be also a simpler solution to the problem described above: Instead of defining five ticket templates, LP input queues and logical DigiPath printers it would be sufficient to define only one for each element. This has the following disadvantages when printing:

- You have to change the printer in the (single) ticket template every time you want to print on a different target printer.
- You also have to modify the ticket template every time you want to print the job in a different way (different impositioning scheme, different copy count ...), which is not set in the template.
- Every time you change the target printer, you have to ensure that the settings of the translation table, which belongs to the currently selected printer, match the ticket template settings. The new combination of ticket template and translation table can possibly affect the results of the ticket template settings (for example the setting of the copy count =10 in ticket template 3 will be ineffective in combination with translation table 1, because this table specifies to take over the copy count from the input job).
- Before submitting the job, you have to ensure that all requirements for the printing of the job can be achieved by the ticket template.

For this reason it is highly recommended to set up the system according to the example above, if you have a complex printing system and if you are printing jobs in different ways.

# 'DPconnect' Maintenance Programs

## Trouble Shooting

**dpconnectset**

'DPconnect' is equipped with trace and log features to analyze program errors. It is possible to set the trace level and to switch logging on and off. Additionally it is possible to hold temporary 'DPconnect' data instead of deleting them and to tell 'DPconnect' to accept incoming jobs but not to put them into the Océ PRISMAproduction Server workflow for debugging reasons.

These actions are controlled with the console program:
'dpconnectset'. The invocation is as follows:

'dpconnectset [-l y|n] [-t 0|1|2|3|4]'
'dpconnectset [-k y|n] [-s y|n] [-h] [-v]'

The meaning of the options is as follows:

| Option | Description |
|---|---|
| -l y | Switch logging on. |
| -l n | Switch logging off. |
| -t n | Sets the trace level to n, where n has to be in the range from 0 to 4. 0 means no trace at all, 4 is the highest level which gives the most detailed report. |
| -k y | Switches the hold data function on. |
| -k n | Switches the hold data function off. |
| -s y | Switches the call of the PJM on, so jobs are being put into the Océ PRISMAproduction Server workflow. |
| -s n | Switches the call of the PJM off, so jobs are not being put into the Océ PRISMAproduction Server workflow. |
| -h | Shows the help screen. |
| -v | Shows the version of this program. |

Invoking the program without any option displays the current settings. Temporary 'DPconnect' data, which are held, are stored in '/u/prismapro/tmp/dpconnect',

Trace and log file are written to the path '/u/prismapro/diag/dpconnect'. There are up to six different trace- and log files written for each print job. Each file has the ODS-job-ID in its name. The file names are:

- <job-ID>_startdpconnect_<pid>.log
- <job-ID>_dpconnect_<pid>.trc
- <job-ID>_pjmdpconnect_<internal number>.log
- <job-ID>_dpconnectserv_<internal number>.trc

Trace and protocol files and temorary data are deleted periodically by the dels-script. The deletion period is set to 7 days. There is one more log file named administration.log. This file logs while installing, updating and uninstalling 'DPconnect'. It is not deleted by dels. After 'DPconnect' has been uninstalled the file is moved to' /tmp/administration.log'.

Temporary data kept by the -k switch is stored in the path 'u/prismapro/tmp/dpconnect'. Data stored here also will be deleted with a period of 7 days.

**spj**

spj (show print job) may be used to show the page and sheet properties of the resulting AFP file of a print job which is processed successfully and is staying in the spool queue. Additionally postprocessing commands and barcode data is shown. spj is good for checking whether page impositioning, highlight color processing, barcode processing and UP3I command settings are correct.

The output of this program is ASCII text which is written to the stdout device. Because the output lines are very long it is recommended to direct the output into a text file and view it with a text editor with horizontal scroll abilities.

The program invocation is: 'spj -n <job ID> [-s] [-c <column separator character>] [-e <empty field character>] [-v]'

Options:

| Option | Description |
|---|---|
| -n <job ID> | Specifies the job ID (no leading zeros needed). |
| -s | Puts the job ID into the output. |
| -c <column separator character> | Alternative character for empty fields in the output file. |
| -e <empty files character> | Alternative character for empty fields in the output file. |
| -v | Shows the version of this program. |

**jview**

jview may be used to show the page images of the resulting AFP file of a print job which is processed successfully and is staying in the spool queue. jview is a shell script which

performes internally a call to the PDV image viewer. The advantage of this program is that the shown jobs don't have to be put into the Print File Library previously. You also may view multiple jobs if a range of job IDs is specified. So for each job the PDV is started repeatedly. To go to the next job the actual PDV has to be terminated and then the PDV is started again to show the next job.

The program invocation is:
'jview [-s <start job ID>]'
'jview [-e <end job ID>] [-p 2|3] [-v] [-h]'

Options:

| Component | Function |
|---|---|
| -s <start job ID> | Specifies the job ID of the first job to be shown (no leading zeros needed). |
| -e <end job ID> | Specifies the job ID of the last job to be shown (no leading zeros needed). |
| -p [2 \| 3] | Selects the viewer:PDV or PDV3. |
| -v | Shows the version of this program. |
| -h | Shows the help screen. |

When no -s or -e option was given, all jobs will be shown. If only the -s option is given all jobs beginning with <start job ID> up to the highest existent job ID will be shown. If only the -e option is given all jobs beginning with lowest existent job ID up to <end job ID> will be shown.

**Program versions**

There is a console program named dpconnectver which shows the program version of all 'DPconnect' programs. The program invocation is:

'dpconnectver'

# 'DPconnect' Appendix

## Translation Rules for Input Job Ticket Statements

| General pattern: | | |
|---|---|---|
| **Input Job Ticket Statement** | | |
| | 'Translation Mode:' | |
| | | Alternative Arguments (Range of values) -> Effect |

| Options: | | |
|---|---|---|
| **'Job Name'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take job name from input ticket. |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take job name from the ticket template "Job Parameter / Job Name". |
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Document Name'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take document name from input ticket |
| | **'Substitute Statement with an other Action' ->** | |
| | | Document Name (String, length 100) -> Take this alternative document name. |
| | **'Ignore Statement' ->** | |
| | | Discard document name. |
| **'Accounting'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take account string from input ticket. |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take account string from the ticket template.<br>"Job / Information / Shipment / Account". |

| Options: | | |
|---|---|---|
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Sender Name'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take sender name from input ticket. |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take sender name from the ticket template .<br>"Job / Information / User / Name". |
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Recipient Name'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take receiver name from input ticket. |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take receiver name from the ticket template .<br>"Job / Information / Shipment / Rceiver Name". |
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Document Input Medium'** | | |
| **'Separator Page Input Medium'** | | |
| **'Back Cover Page Input Medium'** | | |
| **'Front Cover Page Input Medium'** | | |
| **'Exception Page Input Medium'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take the properties for the default-, separator, back cover-, front cover-<br>and exeption-pages input media of the document from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | Input Media Color (White, Pink ...) -> Substitute color with selected one.<br>Input Media Type (Stadard, Transparent Sheet, ...) -> Substitute prefinish with selected one.<br>Custom Defined Media Color (String, length 30) -> Substitute color with this.<br>Custom Defined Media Type (String, length 30) -> Substitute prefinish with this.<br>Paper Length (mm) -> Substitute paper length with this.<br>Paper Hight (mm) -> Substitute paper height with this.<br>Paper Weight (g/m²) -> Substitute paper weight with this.<br>Predrilled Hole Count (number) -> Substitute paper hole count with this.<br>Ordered Input Media Set Size (number) -> Substitute order count with this.<br>Medium Name (String, length 30) -> Substitute medium name with this. |
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Copy Count'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take copy count from input ticket |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take copy count from the ticket template "Job Parameters / Copies" |
| | **'Ignore Statement' ->** | |
| | | Use system default if available (=1). |
| **Disposition** | | |
| | **'Substitute Statement with an other Action' ->** | |
| | | Disposition (Print) -> The only way to process input Jobs is to print |
| **'Delete Source Data'** | | |
| | **'Translate Statement directly' ->** | |
| | | Handling of Print Job Data after Printing without Specification in the Job Ticket |

| Options: | | | |
|---|---|---|---|
| | | | (Delete Source File) -> If the print job data are linked to one main file, only the main file will be deleted.<br>(Delete Source Directory) -> If the print job data are linked to one main file, the directory with the linked data will be deleted.<br>(Do not delete Source Data) -> Nothing will be deleted. |
| | **'Substitute Statement with an other Action' ->** | | |
| | | Handling of Print Job Data after Printing: | |
| | | | (Delete Source File) -> If the print job data are linked to one main file, only the main file will be deleted.<br>(Delete Source Directory) -> If the print job data are linked to one main file, the directory with the linked data will be deleted.<br>(Do not delete Source Data) -> Nothing will be deleted. |
| | | Handling of Print Job Data after Printing without Specification in the Job Ticket | |
| | | | (Delete Source File) -> If the print job data are linked to one main file, only the main file will be deleted.<br>(Delete Source Directory) -> If the print job data are linked to one main file, the directory with the linked data will be deleted.<br>(Do not delete Source Data) -> Nothing will be deleted |
| | **'Ignore Statement' ->** | | |
| | | Nothing will be deleted. | |
| **'Job Start Message'** | | | |
| | **'Translate Statement directly' ->** | | |
| | | Take job start message from input ticket. | |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | | |
| | | Take job start message from the ticket template<br>"Job Attributes / Message / Message Text" | |
| | **'Ignore Statement' ->** | | |
| | | Use system default if available. | |
| **'Message'** | | | |
| | **'Translate Statement directly' ->** | | |

| Options: | | |
|---|---|---|
| | | Take message from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Message (String, length 100) -> Take this alternative message |
| | **'Ignore Statement' ->** | |
| | | Use system default if available |
| **'Document Plex Mode'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take plex mode for the document from input ticket |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take plex mode from the ticket template "Edit / File Properties / Convert / Paper Layout". |
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Image Rotation for Document'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take image rotation for document from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Image Rotation<br>(Integer: 0, 90, 180, 270) -> Alternative rotation will be selected. |
| | **'Ignore Statement' ->** | |
| | | No rotation. |
| **'Collating'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take collate mode for the document from input ticket. |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take collate from the ticket template "Job Parameter / Copies" combo box. |
| | **'Ignore Statement' ->** | |
| | | Use system default if available. |
| **'Exception Plex Mode'** | | |

| Options: | | |
|---|---|---|
| | **'Translate Statement directly' ->** | |
| | | Take the exception plex mode from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | PlexMode (Simplex, Duplex, Duplex/Tumble) -> All exception plex pages are printed in this mode. |
| | **'Ignore Statement' ->** | |
| | | All pages are printed like in "Document Plex Mode". |
| **'Exception X-Image Shift'** | | |
| **'Exception Y-Image Shift'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take page numbers and shift from input ticke |
| | **'Substitute Statement with an other Action' ->** | |
| | | Pages where shift is to be applied (Even Page Numbers, Odd Page Numbers, All Page Numbers) -> This alternative pages are to be shifted.<br>Image Shift in X (Y)-Direction (value [mm]) -> Use this shift value |
| | **'Ignore Statement' ->** | |
| | | No shift is done. |
| **'Image Rotation on Exception Pages'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take image rotation from input ticket |
| | **'Substitute Statement with an other Action' ->** | |
| | | Image Rotation (Integer: 0, 90, 180, 270) -> Alternative rotation will be selected |
| | **'Ignore Statement' ->** | |
| | | No rotation. |
| **'LP Input Queue Name'** | | |
| | **'Translate Statement directly' ->** | |

| Options: | | |
|---|---|---|
| | | Redirection to another LP Input Queue, indicated in the job ticket on the print server.<br>The job will be processed acoording to the ticket template assigned to this queue. |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP-Input-Queue Name (String) -> The job will be redirected to the queue indicated in the edit field 'LP-Input-Queue-Name'. |
| | **'Ignore Statement' ->** | |
| | | No redirection to another Input-Queue. |
| | | |
| **'Slipsheeting'** | | |
| | **'Translate Statement directly' ->** | |
| | | A slip sheet is added after the job. If no slip sheet material has been defined, the default media will be used. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Interposing of Slipsheets (After every print job) -> A slip sheet is added after every job. If no slip sheet material has been defined, the default media will be used. |
| | **'Ignore Statement' ->** | |
| | | No slip sheets are processed. |
| | | |
| **'Slipsheet Input Medium'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take the properties for the slip sheets from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | Input Media Color (White, Pink ...) -> Substitute color with selected one.<br>Input Media Type (Stadard, Transparent Sheet, ...) -> Substitute prefinish with selected one.<br>Custom Defined Media Color (String, length 30) -> Substitute color with this.<br>Custom Defined Media Type (String, length 30) -> Substitute prefinish with this.<br>Paper Length (mm) -> Substitute paper length with this. Paper Hight (mm) -> Substitute paper height with this.<br>Paper Weight (g/m²) -> Substitute paper weight with this. Predrilled Hole Count (number) -> Substitute paper hole count with this.<br>Ordered Input Media Set Size (number) -> Substitute order count with this.<br>Medium Name (String, length 30) -> Substitute medium name with this. |
| | **'Ignore Statement' ->** | |
| | | No slip sheets are processed. |
| **'Document Image X-Shift Front Side'** | | |
| **'Document Image X-Shift Back Side'** | | |
| **'Document Image Y-Shift Front Side'** | | |
| **'Document Image Y-Shift Back Side'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take shift for the document from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Front (Back) Page Image Shift in X (Y)-Direction (value [mm]) ->Use this shift value. |
| | **'Ignore Statement' ->** | |
| | | No shift is done |
| **'Binding'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Bind-Default"-command is added to the job only if binding is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take binding substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring binding only -> Take binding substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if binding is requested in the input ticket. All UP³I devices selected here are used |
| | **'Ignore Statement' ->** | |
| | | No Binding is done. |
| | | |
| **'Right Side Binding'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Bind-Default"-command is put to the job only if binding is requested in the input ticket. All sheet images are rotated by 180°. |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take right side binding substitution action from the ticket tem plate "Job Attributes / Print / UP³I Devices". All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring right side binding only -> Take right side binding substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if right side binding is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No right side binding is done |
| | | |
| **'Bookletmaker'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Bookletmaker-Booklet"-command is put to the job only if binding is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing Apply to all Jobs -> Take booklet maker substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing! Apply to Jobs requiring booklet maker only -> Take booklet maker substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if booklet maker is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No booklet maker is used |
| **Printer Default Finishing** | | |
| | **'Translate Statement directly' ->** | |
| | | Take postprocessing commands from the ticket template "Job Attributes / Print / Print / UP³I Devices" |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take postprocessing commands from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring printer default finishing only -> Take postprocessing commands from the ticket template "Job Attributes / Print / UP³I Devices", if printer default finishing is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No printer default finishing |
| **'External Finishing Device (Custom)'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Special Handling"-command is put to the job only if external postprocessing is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take external postprocessing from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring external finishing only -> Take external postprocessing from the ticket template "Job Attributes / Print / UP³I Devices", if external finishing is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No external finishing |
| | | |
| **'Stacker'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stack-AlternateOffset Stack"-command is put to the job only if customer specific postprocessing is requested in the input ticket. |
| | **'Substitute Statement with an other Action' -** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take stacker substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring stacking only -> Take stacker substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if stacking is request ed in the input ticket. All UP³I devices selected here are used |
| | **'Ignore Statement' ->** | |
| | | No stacker is used |
| | | |
| **'Portrait Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Corner Staple-Top left corner"-command is put to the job only if portrait staple is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take portrait staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring portrait staple only -> Take portrait staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if portrait staple is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| **'Landscape Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Corner Staple-Bottom left corner"-command is put to the job only if landscape staple is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take landscape staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring landscape staple only -> Take landscape staple substitu tion action from the ticket template "Job Attributes / Print / UP³I Devices", if landscape staple is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| **'Landscape Dual Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Edge Stitch-left edge"-command is put to the job only if landscape dual staple is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take landscape dual staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring landscape dual staple only -> Take landscape dual staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if landscape dual staple is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| | | |
| **'Dual Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Edge Stitch-left edge"-command is put to the job only if dual stapling is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take dual staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring dual staple only -> Take dual staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if dual staple is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| | | |
| **'Right Side Portrait Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Corner Staple-Bottom left corner"-command is put to the job only if stapling is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take right side portrait staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring right side portrait staple only -> Take right side portrait staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if right side portrait staple is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| **'Right Side Landscape Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Corner Staple-Bottom left corner"-command is put to the job only if stapling is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take right side landscape staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring right side landscape staple only -> Take right side landscape staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if right side landscape staple is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| **'Right Side Dual Staple'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Edge Stitch-left edge"-command is put to the job only if stapling is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |

| Options: | | |
|---|---|---|
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take right side dual staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring right side dual staple only -> Take right side dual staple substitution action from the ticket template "Job Attributes / Print / UP³I Devices", if right side dual staple is requested in the input ticket. All UP³I devices selected here are used |
| | **'Ignore Statement' ->** | |
| | | No stapling is done. |
| | | |
| **'Stitch at Specified Position'** | | |
| | **'Translate Statement directly' ->** | |
| | | A "UP³I-Stitch-Edge"-command is put to the job only if stapling is requested in the input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | LP Input Queue Template Settings for UP³I Postprosessing<br>Apply to all Jobs -> Take 'Stitch at a specified position' action from the ticket template "Job Attributes / Print / UP³I Devices" All UP³I devices selected here are used. Applies to jobs not requiring any postprocessing!<br>Apply to Jobs requiring stitching at a specified position only -> Take stitching at a specified position action from the ticket template "Job Attributes / Print / UP³I Devices", if stitching at a specified position is requested in the input ticket. All UP³I devices selected here are used. |
| | **'Ignore Statement' ->** | |
| | | No stitching is done. |
| | | |
| **'Highlight Color'** | | |
| | **'Translate Statement directly' ->** | |

| Options: | | |
|---|---|---|
| | | Highlight color jobs:<br>Highlight color parts and normal color parts are processed and printed with their respective print colors. A second highlight color image layer is generated. DPconnect applies its own fixed highlight color settings for the Unity RIP. That is: Separation method is 'Standard Colors (CMY/RGB)', all colors are searched for. So all colors except black and white are treated as highlight color. Highlight color settings for the Unity RIP from the LP Input Queue Template are allways ignored.<br>Normal jobs:<br>The complete job is processed and printed whith normal color. A second highlight color image layer is not generated. Highlight color settings for the Unity RIP from the LP Input Queue Template are ignored. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Highlight Color Settings in LP Input Queue Template:<br>(Apply to all Jobs) -> Highlight color parts and normal color parts are processed and printed with their respective print colors. DPconnect applies the highlight color settings for the Unity RIP from the LP Input Queue Template. |
| | **'Ignore Statement' ->** | |
| | | Highlight color parts of a print job will always be printed in the normal print color (black). A second highlight color image layer is never generated. Highlight color settings for the Unity RIP in the LP Input Queue Template are always ignored. |
| **'Orientation'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take orientation from input ticket. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Orientation (Portrait) -> Take portrait setting.<br>(Landscape) -> Take landscape setting.. |
| | **'Ignore Statement' ->** | |
| | | Take portrait setting. |
| **'Fonts'** | | |
| | **'Translate Statement directly' ->** | |

| Options: | | |
|---|---|---|
| | | Take font name and size from the input ticket.. |
| | **'Substitute Statement with an other Action' ->** | |
| | | Font Name: (Selection of default font for PostScript Level 1 and 2) -> Take alternative font name.<br>Font Size [points] (IInteger from 4 to 1000) -> Take alternative font size. |
| | **'Ignore Statement' ->** | |
| | | Courier, grade 10 will be selected. |
| **'Chapter Start'** | | |
| | **'Translate Statement directly' ->** | |
| | | Take chapter starts from the input ticket.. |
| | **'Ignore Statement' ->** | |
| | | No chapter starts. |
| **'Halftone Quality'** | | |
| | **'Translate Statement directly' ->** | |
| | | Select source of the Halftone Quality Specification for all page elements:<br>(Halftone Line Frequency for Graphics)<br>(Halftone Line Frequency for Images)<br>(Halftone Line Frequency for Text) |
| | **'Substitute Statement with LP Input Queue Template Action' ->** | |
| | | Take lpi setting from Job Ticket Template |
| | **'Ignore Statement' ->** | |
| | | Take default setting of the UnityRIP |

# Chapter 5
# LCDS-Module Operation

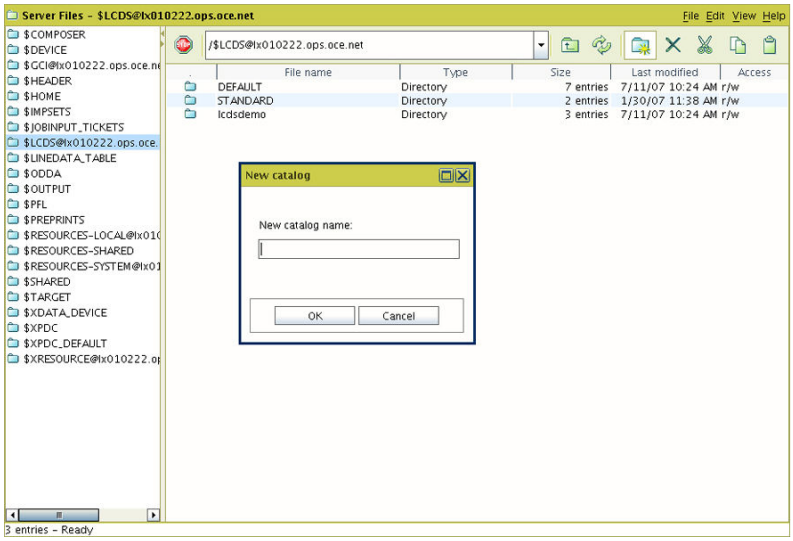
# LCDS-Module: 'New catalog'

## Introduction

The necessary print resources for printing LCDS data are be stored and organized in different customer catalogs.

To create a new customer catalog:

## Illustration




1. In the Océ PRISMAproduction Server Explorer open the 'Server Files' application and go to the LCDS or the GCI file system.
2. Select 'File' -> 'New directory' or click the 'Create new directory' icon to open the 'New catalog' dialog box:
3. Under 'New catalog name:' enter a name. The length of the field is restricted to 32 bytes. Click 'OK' to confirm the action.

## Result

When setting up a new catalog, the sub catalogs 'rds' and 'xpar' are created automatically.

See also: *'LCDS-Module: Organization of Resources'* on page 215.

# LCDS-Module: Organization of Resources

## Introduction

JSLs in Unix ASCII text format and AFP resources (especially resources already created by XRC process of other LCDS systems), may be put into the respective sub catalogs “jsl” and “rds” of the target catalog.

For this purpose, the Océ PRISMAproduction Server 'Explorer''Server Files' application with service or admin rights may be used. With this file manager, (recommended is the use of the GCI file system of the respective server), JSLs and converted AFP resources within “rds” may be copied from one catalog/subcat into another catalog or from the local server file system to a catalog/subcat.

## Copy Resources

1. Transport (for example using ftp) the files to a local “source” directory (for example to '/u/admin').

*Note:*
In case of ftp transfer of text files from DOS/Windows system, please use ascii transfer mode. In case of transfer of binaries/print resources, please use “bin” transfer mode.

2. In this local directory (or for example in the “jsl” or “rds” subcat of the source catalog), mark/select the files (left mouse button) which you want to copy.

*Note:*
Please note, that the files may be sorted using alphabetic names, size, date and type (for JSLs). This may help marking the files.
You can access the local file directory tree, opening the GCI file view of the respective server, where the local files are located, and clicking the 'Change to parent directory' icon to access the Linux root directory (/).

3. Press the 'Copy selected files to clipboard' icon in the upper right corner.
4. Change with the GCI file system (resource manager) to the target catalog. Change to the “jsl” or “rds” sub catalog.

*Note:*
If the respective subcat is not created yet, please use the 'Create new directory' icon to create a sub cat and select the respective subcat type for example “jsl”.

5. Press the 'Paste files from clipboard' icon to copy the files of the clip board into the actual sub cat.

*Note:*
Please note, that the file manager will issue an overwrite warning, if the files (JSL or AFP resource) is already present. In this case it is recommended to skip / chancel the copy process in order to avoid for example the overwriting of already changed JSLs.

# LCDS-Module: 'LCDS Resources'

## Introduction

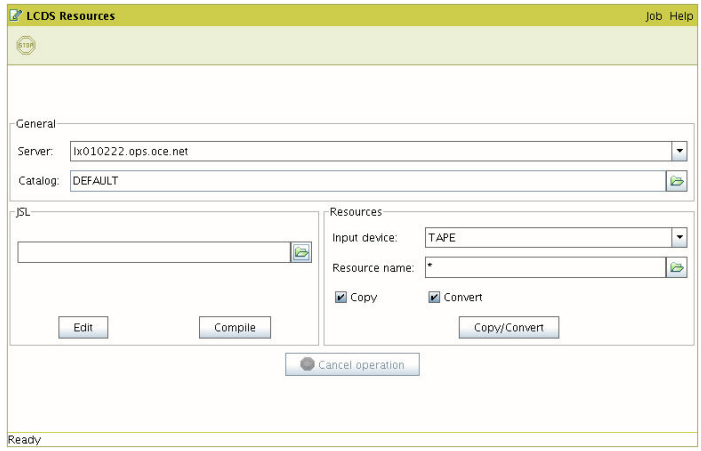
This application allows you to copy and/or convert Xerox resources from a Xerox formatted input media or from hard disk to the correct directories in the LCDS-Module. It also gives you the possibility to edit JSLs.

After the copy process the resources are converted (if selected) to the AFP format and are stored on the harddrive in the directory ('/u/prismapro/data/cat/<catalog>/fnt(img,lgo,frm'), where <catalog> is the current catalog.

*Note:*
If you select 'Format' -> 'Resources' in the 'List of Files & Workflow Definition' section of the 'Print Job Manager' (LCDS-Ticket), you can also copy/convert resources with the PJM!

***Attention:***
This program is not available to the user "operator"!

## Illustration




## Resource Types

The LCDS-Module accepts the following resource types:

| Resource Type | Description |
|---|---|
| CMD | Command files (*.CMD) are transferred into the system from an input media. After this they only serve for information purposes. They will not be converted or processed in any way. |
| FNT | Fonts (*.FNT) are transferred from input media and converted to Océ PRISMAproduction Server fonts. Kanji fonts will be rejected. |
| LGO | Logos (*.LGO) are transferred from input media and converted to Océ PRISMAproduction Server page segments. Multi color logos will be accepted. |
| FRM | Forms (*.FRM) are transferred from input media and converted to Océ PRISMAproduction Server overlays. Color substitution lists (I-lists) will be processed in GRAPHIC and LOGO statements ('...INK inkref1, [inkref2] [...];') |
| IMG | Images (*.IMG) are transferred from input media and converted to Océ PRISMAproduction Server page segments. Multi color images will be accepted. |
| JSL | JSL's (*.JSL) are transferred from input media and converted to Océ PRISMAproduction Server internal formats. They have to be compiled in order to use them for data conversion. |

*Note:*
Other types of resources are ignored.

Resources can be loaded onto the server from the following media:

- 9 track tape
- IBM Cartridge (3480, 3490)
- 3,5“ disk (1,2 MB format)
- Hard disk

## 'Copy/Convert' Workflow

Before you can start copying, you must perform the following steps in the **Resources** section of the 'LCDS Resources' application:

| UI Element | Description |
|---|---|
| 'Input device:' | Select an available input medium from a list (Tape, Hard Disk, Cartridge or 3 1/2" Floppy).<br>If the device **Harddisk** is chosen, files with extension ".JSL" are checked for the existence of line feed characters in the first 400 bytes. If there are such characters, the file is assumed to be in ASCII-text mode. Then it is automatically moved into the "jsl" subcatalog of the selected catalog. Files without extensions but with AFP resource prefixes like "O1", "IX" or "Co" are assumed to be AFP resources and are automatically moved to the "rds" subcatalog.<br>Please note, that the file names are also automatically changed to the upper case, which is the default of both subcatalogs.<br>Please note, that there is no overwrite protection. |
| 'Resource name:' | Lists all resources on the selected medium. Xerox file name and file type. Wildcards are allowed (* = all files, A*.FNT = all fonts, which start with character 'A'). |
| 'Copy' | Check this box if you only want to copy the resources on your system. |
| 'Convert' | Check this box also to ensure that the resources are converted after copying. |

| UI Element | Description |
|---|---|
| 'Copy/Convert' Button | When you click the 'Copy/Convert' button, the system begins loading the relevant resources onto the server. During copying, the button is dimmed, which means that the function is not available. The names of the resources being copied to the server are displayed in the Messages window.<br>When the files have been read and the 'Convert' checkbox is marked, the Xerox resources of type FNT, FRM, IMG or LGO are converted to the LCDS-Module format and saved in the directory '/u/prismapro/data/cat/<catalog>/rds' where <catalog> is the current catalog.<br>If you ftp resources from an MVS or Elixir system, be sure that all files are in upper case. If the LCDS-Module has been installed with the default settings, the original resources will be deleted after successful conversion. Otherwise they will be moved to '/u/prismapro/data/cat/<catalog>/FNT_conv' ('FRM_conv, IMG_conv, LGO_conv' respectively).<br>After completion of the conversion, a status report is displayed in the Messages window showing how many files have been read and converted successfully or unsuccessfully.<br>When conversion is complete, the 'Copy/Convert' button is available again. |
| Cancel Operation Button | Aborts the current 'Copy/Convert' operation. |

After a successful conversion, the Xerox resources can be deleted or kept (optional). If needed, the resources can then be converted again without reading them from tape once more. In any case, the backups of all Xerox resources must be saved in the original Xerox tape format on tapes or diskettes.

## Deletion Mode

Depending on the **Deletion_mode** you set with the 'LCDS Jobs' tool in the 'Configuration' workspace of the Océ PRISMAproduction Server Explorer (see "LCDS Parameter Configuration" -> "LCDS Jobs" in the Océ PRISMAproduction Server Administration Settings and Tasks Guide), every single element (every single resource) will be processed in the following way after successful conversion:

| Deletion Mode | Description |
|---|---|
| 0 | The single element will be moved to backup files (fnt_conv, frm_conv, img_conv and lgo_conv), which serve as input library for the CONVERT function. So all single resources will be collected in their original format and can be converted again by the CONVERT function, whenever this is needed. |
| 1 | The single element will be deleted from the COPY library without saving. |

Regardless of the Deletion_mode 0 or 1 the resource element is not available on the system for the COPY function anymore after successful conversion.
Regardless of the Deletion_mode it is recommended to keep the original data on the Xerox resource tape or on the Xerox floppy.

Note the following when loading resources from **Harddisk**:

- Copy Xerox resources with corresponding extensions (for example ABC.FRM) in **uppercase** characters into the directory '/u/prismapro/data/resimport/lcds'.
  **Note**: You can use the command 'chfnm –u' to convert all resource names from lowercase to uppercase.
- Select Harddisk as the input device and start copying.
- The files in '/u/prismapro/data/resimport/lcds' are **not** deleted automatically after the conversion!

## Compile JSLs

After copying the resources on your system you have to compile the JSLs. This is done in the **JSL** section of the 'LCDS Resources' window. Here you can also edit the JSLs and modify them. The compiled JSL's are written to one file called '/u/prismapro/data/cat/<catalog>/ldparm.dat', where <catalog> is the current catalog.

*Note:*
If you select **JSL** in the 'List of Files & Workflow Definition' section of the Print Job Manager' (LCDS-Ticket), you can also compile JSLs with the PJM!

Use this command to edit and compile JSLs. You have to compile every JSL you load into the system in order to make it available for the LCDS-Module.

| UI Element | Description |
|---|---|
| JSL file name | Type in the JSL ( max 6 digits) name without file extension to be compiled or choose a JSL file from the list. Type in an asterisk (*) to compile all JSLs in the selected catalog. You can also use '?' to replace single characters. |
| List box | Lists all JSL's on the server. |
| 'Edit' | Starts a notepad to edit the JSL's. To edit a JSL, enter the JSL name (max. 6 characters) without the file extension and click the 'Edit' button. This opens an editing window in which you can make changes. To save changes, close the window. You are then asked whether you want to save the file. Answer **Yes** to save the file, or **No** to discard the changes. When you have finished editing, you must compile the JSL to make the changes effective.<br>Wildcards in the JSL filename are rejected by the UI, if the JSL editor is called.<br><br>*Note:*<br>An imported JSL can be used further on a Xerox system after export with the 'LCDS Resources Export' Explorer applet. |
| 'Compile' | Starts the compile process after selecting or typing in the JSL name. (If you use wildcards like '*' or '?' all matching JSLs will be compiled. When compiling JSLs, messages will appear in the 'Message' window for each processed JSL. The compiler shows start and stop messages and a summary of all JSLs which were read, successfully compiled or interrupted. |
| 'Cancel Operation' | Aborts the compile process. |

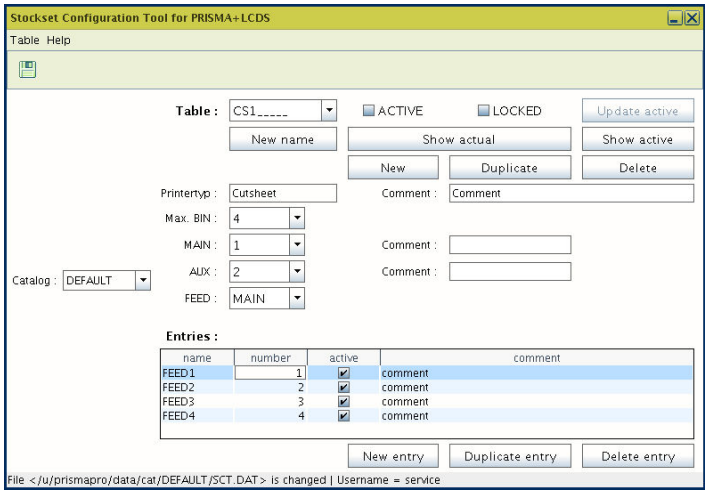
# LCDS-Module: Stockset Configuration Tool

## Introduction

This tool allows you to define the status of paper loading of the printer. In detail you define in which input bin the various sorts of paper (stocknames) should be loaded for the different applications. Therefore the SCT links stocknames to input bins (or input bin combinations) and saves this configuration to SCT tables. When printing an LCDS application you have to activate the matching SCT table.
A change of the arrangement of paper loading during an LCDS conversion process initiates an operator message defining how to load the paper into the printer (form message/Otext). The process works as follows: while converting an LCDS application the system checks if the stocknames used by a STOCKS command are defined in the active SCT table. If this is the case the table names will be reported by a form message or by Otext to the operator. If the active table does not match the requirements, the system searches for a matching table in the SCT.DAT file. If there is exactly one matching table, it will be set active automatically after issuing a warning. If there are more than one matching tables, a list of these tables appeares for the operator to choose from. In case the system cannot find any matching table, a list of the required stocknames is issued for the operator to create a new table with the respective settings.
The SCT table which is used by the x-filter during the conversion process is locked automatically by the system so it cannot be modified by the operator. This is done because the name of the SCT table is used as FORM ID/form message or in the Otext allowing the operator to view the requirements of paper loading of every job before it is printed. The FORM ID gives information on the start configuration. An Otext message will be displayed if the status of paperloading is changed during print process (by DJDE or JSL).

*Note:*
SCT configuration is only used if the tray selection of the PJM is set to 'by the stockset configuration'.

## Illustration




## Overview

Before setting up tables with the SCT it is recommended to analyze the applications which are to be printed.
In general there are two possibilities for the systems engineer or administrator to set up tables:

**Definition of tables for more than one application**

Example:

The following 8 applications should be printed with different paper colors or forms:

| | Applications | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **Stocknames** | | | | | | | | |
| WHITE | X | X | X | X | | X | | |
| YELLOW | X | X | | | X | | | |
| BLUE | | | | X | X | | | |
| RED | X | X | | X | X | | | |
| GREEN | | | X | | | X | | |
| GRAY | | | | | | X | | |

| | Applications | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FORMA | | | | | | | X | X |
| FORMB | | | | | | | X | X |
| FORMC | | | | | | | X | |

Using a printer with 4 input bins (for example Océ VP5000), you need to set up three tables:

| SCT table name | Stockname | Applications |
|---|---|---|
| COLOR01 | WHITE/YEL-LOW/BLUE/RED | 1 2 4 5 |
| COLOR02 | WHITE/GREEN/GRAY | 3 6 |
| FORMX | FOR-MA/FORMB/FORMC | 7 8 |

Using a printer with 3 input bins (for example Océ PS75), you need to set up five tables:

| SCT table name | Stockname | Applications |
|---|---|---|
| COLOR04 | WHITE/YELLOW/RED | 1 2 |
| COLOR05 | WHITE/BLUE/RED | 4 |
| COLOR06 | YELLOW/BLUE/RED | 5 |
| COLOR02 | WHITE/GREEN/GRAY | 3 6 |
| FORMX | FOR-MA/FORMB/FORMC | 7 8 |

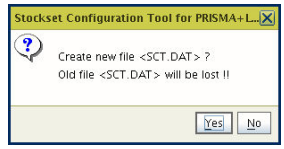
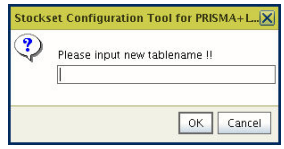
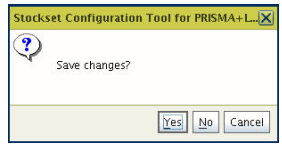
**Definition of many tables, each for one application**

For a description of the workflow see the following chapter.

## Functions of the SCT Window

To open the editor window open the Océ PRISMAproduction Server Menu and click on Stockset Configuration.

**The 'Table' Menu**

| Menu Entry | Description |
|---|---|
| 'New SCT.DAT' | Creates a new SCT.DAT file. The old SCT.DAT will be deleted. A warning is displayed asking you to confirm the operation.<br>  <br>  |
| 'Save'<br> | Saves the modified SCT.DAT file. |
| 'Exit' | Exits the program. You are prompted to save changes.<br>  |

**Buttons on the Main Window**

| UI Element | Description |
|---|---|
| 'Table' | Use the arrow button to open a list with all defined tables stored in the SCT.DAT file to select from.<br>The following tables are predefined when you start the Stockset Configuration Tool:<br>STANDARD<br>This table is always locked and therefore cannot be modified or deleted. Activate this table when printing an application without stockset definition to show the entry STANDARD in the print queue window.<br>TEST<br>This table cannot be locked and should therefore only be used for testing reasons.<br>FF1<br>Default table for fanfold printers (only one input bin).<br>CS1<br>Default table for cutsheet printers. |

| UI Element | Description |
|---|---|
| 'ACTIVE' | Checking this box will activate the table shown in the SCT window. This table will be used and locked by the x-filter when printing an application.<br>If you use the Print Job Manager to submit LCDS print jobs you have to insert the name of the table which should be used in the LCDS 'File properties' window in the field 'Active SC-Table'. This will have the same effect as checking this box. |
| 'LOCKED' | If this box is checked (either by the user 'service' or 'admin' or by the system) the table shown in the window cannot be modified. |
| 'New name' | Changes the name of an existing, unlocked table. |
| 'Show actual' | This button enables you to view the actual settings of the table assigned to the job, which is currently printing. This may be helpful if the active table has been modified in the meantime. During job conversion the used table is locked and cannot be modified. A form message text will be generated for this job displaying the table name, which is valid for the initial paper-loading. This valid and unchanged table is shown in the SCT window. |
| 'Show active' | Displays the active table, if present. |
| 'New' | Creates a new empty table. Define the maximum number of input bins (up to 16) in the middle of the window. Insert the required stocknames in combination with the number of the input bins in the 'Entries' table at the bottom of the window. |
| 'Duplicate' | Duplicates the table shown in the window. You will be prompted to insert a new name. Use this command if you want to make minor changes to a copy of an existing table. |
| 'Update active' | Same as 'Duplicate' but duplicates the active (!) table and it's name. To differentiate the duplicates the SCT adds an increasing number to this name. Use this command if you want to create groups of similar tables. |
| 'Delete' | Deletes a selected table from SCT.DAT. Before this is done you will be prompted to confirm. |
| 'Catalog' | In this selection box define the catalog used for the modification of the SC-tables. |
| 'Printertype' | The space in this text field is limited to one word with a maximum of 14 characters. Insert any optional term (for example "Cutsheet") which serves as a comment to the selected table. |

| UI Element | Description |
|---|---|
| 'Comment' | Insert a comment for the entire table, for example on the printer or on the application for which the table is designed. |
| 'Max. BIN' | Select the number of input bins of the printer. The number is used to check active input bins in an active table. A warning will be displayed if you try to add an input bin, which exeeds the selected number. For cutsheet printers you can choose a number between 1 and 16. |
| 'MAIN' | Number of stockbin used as MAIN input bin, for example DJDE FEED=MAIN (you may insert a comment on the type of paper used for this bin). |
| 'AUX' | Number of stockbin used as AUX input bin, for example DJDE FEED=AUX or using the conditional processing command RAUX (you may insert a comment on the type of paper used for this bin). |
| 'FEED' | Equivalent to XEROX operator command FEED. If FEED=MAIN, the settings of the active table are used. For FEED=AUX or <n> only the stockbin AUX or <n> is used and the settings of the active table are overridden. |
| 'Entries' | This is the section where you define the combination of stock-names and input bins for the selected table. It is also possible to modify an existing table by activating or deactivating the stockname/bin combinations. |
| Column Titles | 'name'<br>= stockname. As a stockname you can choose any name (for example the color of the paper) with a maximum of 6 characters.<br>'number'<br>= number of the input bin. With the VP5000 a number can also represent a combination of input bins (cluster).<br>'active'<br>= single entries of a list can be activated or deactivated. This feature enables you to adjust a table for different applications.<br>'comment'<br>= insert a comment for the entry in the list (for example physical input bins, type of paper, ...). |
| The following buttons refer to the entries of a selected table in the list. | |
| 'New entry' | Click this button to create a new entry. |
| 'Duplicate entry' | Use this button to duplicate a selected (highlighted) entry in the list. |

| UI Element | Description |
|---|---|
| ‘Delete entry‘ | Deletes a selected (highlighted) entry in the list. Before this is done you will be prompted to confirm. |
| Status bar | This bar at the bottom of the editor window indicates the status of the SCT. For instance you will be informed, if the SCT.DAT has been changed and needs to be saved. Activating a table will automatically save the configuration. |

*Note:*
The term ‘Form’ is used with the LCDS-Module in the sense of general settings for cutsheet inbin configuration defined in a SC-table. The form message window is generated if the stockset is defined in the start JDE or JDL. If the stockset is changed using DJDE the conversion process automatically inserts OTEXT WAIT messages showing the name of the SC-table.

*Note:*
It is recommended to avoid positioning forward or backward after interrupting the print job (in the 'All Jobs' window), if the print data you want to skip contain OTEXT messages generated by the stockset handling. These messages will be processed in any case leading to an improper reloading of paper.

# Chapter 6
# PCL-Module Operation

# PCL-Module: General Features

## Introduction

The PJL/PCL Backend extends PJL/PCL printing with Output Management functionality of Océ PRISMAproduction Server:

- Native Workflow
- Commands: Interrupt, Continue, Print Ranges
- Messages at start of print job, at end of print job, at printer errors, on interrupts
- Checkpointing
- Esc Sequence(s) Replacement Filter including Barcode (Input)
- Esc Sequence(s) Replacement (Output)
- Accounting according to Océ PRISMAproduction Server conventions
- CustomTone (passthrough mode)
- Support of PCL5 printers up to 1000 ppm
- Configuration of backend according printer capabilities (output trays, offset, ...)
- Message dialog on missmatch of job requirements and printer capabilities
- Trace functionality according to Océ PRISMAproduction Server conventions
- Header and trailer pages

*Note:*
To use the PJL/PCL backend you need a valid license. Currently you need the following license:
**Product name PJL_Driver**
**Product version 4.0**

## Support of PJL and PJL Encapsulated PCL5 Data Streams

Printer capabilities are checked through PJL protocol and passed to the spool.
Through PJL the printer is switched to and from PCL datastream.
Through PJL the Océ PRISMAproduction Server Jobstring is passed to the operator panel of the printer.

## Support of Native PCL 5 Data Streams

Native PCL 5 datastreams are passed through to the printer, if the printer does not support PJL or are encapsulated with a PJL sequence at the beginning and at the end of the job.

## Supported Printers

The PJL/PCL Backend supports printers up to 1000 ppm connected via TCP/IP. Functional code 6 or higher is required. To provide the Output Management System with the required information the printer must support the PJL commands defined in Print Job Language Technical Reference Manual (Hewlett-Packard Company). Supported printers are:

- VarioStream 9220
- VarioStream 9210
- VarioStream 7650
- VarioStream 7650
- VarioStream 7550
- VarioStream 7450
- VarioStream 7400
- VarioStream 7300
- VarioStream 7200
- VarioStream 6100
- VarioPrint 5160
- VarioPrint 5115
- VarioPrint 3090
- Generic_Cutsheet
- Generic_Single
- Generic_CTWIN

## Restrictions

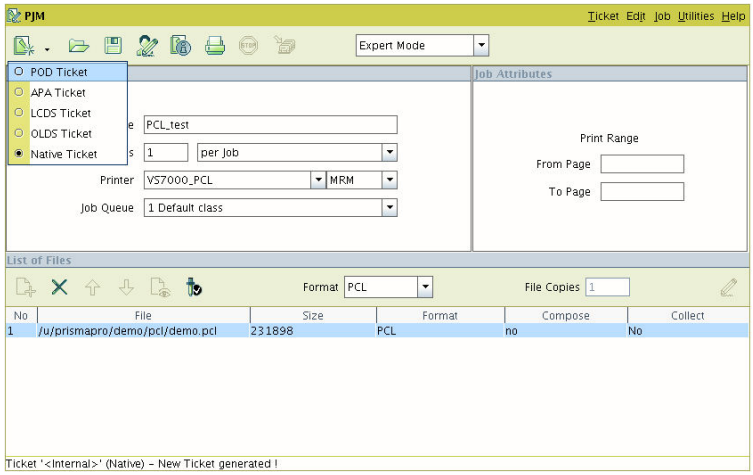
- MSG pages are not supported.
- Absolute and relative positioning is not supported.
- The NPRO functionality is not supported.
- Tuning sets are not used.
- The backend does not connect to the Océ PRISMAproduction Server database. It does not make entries in it or use any information from it.

# PCL-Module: Native Workflow

## Introduction

Print jobs which should be printed with the PJL/PCL Backend must be generated with the Native Ticket of Océ PRISMAproduction Server:

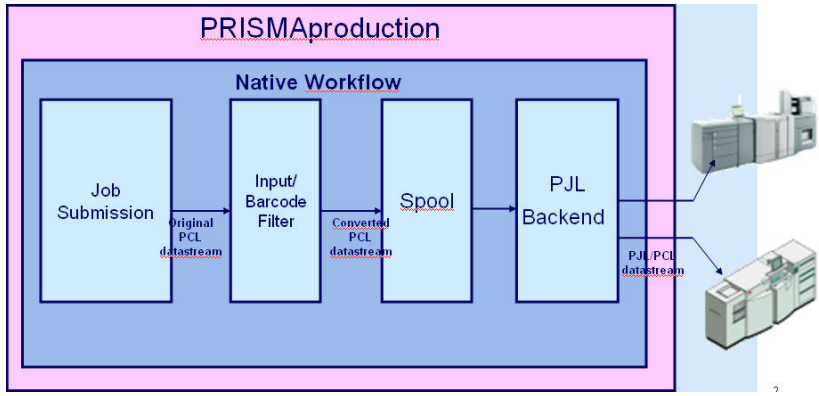
## Illustration




## Native Workflow

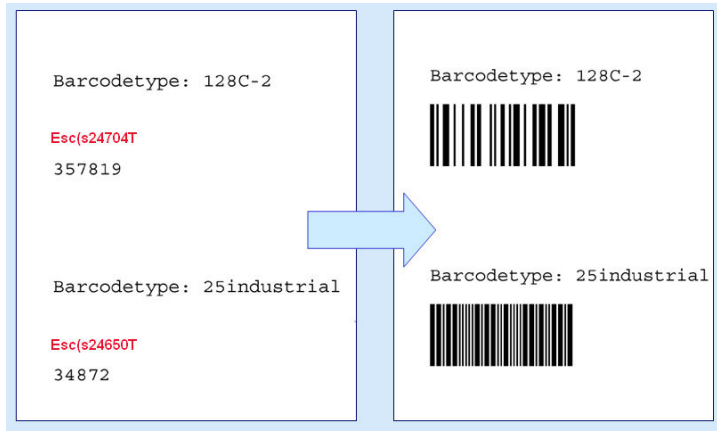
Before the job is submitted to the spool, the PCL data are parsed for esc sequences by the input esc sequence replacement filter. Within this processing step barcode esc sequences can be replaced by a bitmap representation of the barcode esc sequences and other escape sequences can be removed or replaced. The behavior of the input esc sequence replacement filter is controlled by a file properties window in the PJM (see *'PCL Native Workflow in the PJM'* on page 237).

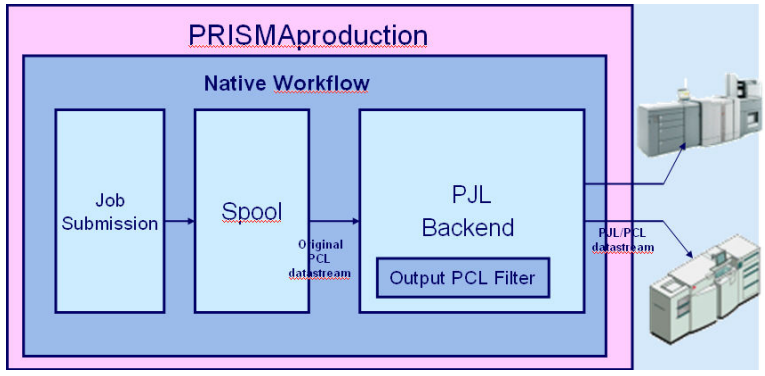
In this processing step only printer independent changes should be made.




The output esc sequence replacement filter handles printer specific changes to the PCL datastream (for example tray selection).

The barcode filter converts esc sequences into bitmaps:




See also: *'PCL-Module: Syntax of the Native PCL Filter'* on page 242

## Supported and Unsupported Spool Job Commands

The Backend supports the following spool job commands (in the Océ PRISMAproduction Server 'All Jobs' application):

- Continue
- Restart

The Backend does not support the following spool job commands:

- Halt
- Reposition: absolute and relative reposition cannot be used. Instead use the page range to reposition.
- Interrupt: Don’t use the spool interrupt command with PJL Backend. Due to possible buffering of many jobs in the printer, for which the error recovery is made in the printer, the behavior of this command would be ambiguous in several situation and the delay between entering the command and the reaction on it might be very long. To interrupt a printing job use the cancel job button in the printer control panel. After this the print job is interrupted and the printer is deactivated. To continue printing activate the printer again.
- Print Ranges: For partial job printing only one page range (from ... to) is supported.

## Additional Information for the Separator Pages

You can use the ’Personal Information’ dialog in the PJM to add detailed information on the reciever to the separator pages. Therefore select the 'Job' menu in the PJM and click on 'Information ...'

# PCL Native Workflow in the PJM

## Introduction

The properties dialog for the PCL workflow provides the ability to modify PCL data to correct problems caused by older applications or PCL data designed for different printers. The properties window for PCL files can also be used to send PCL fonts and macros with PCL data stream, if they are not available in the printers, and to replace PCL escape sequences. These steps are performed depending on the job settings, defined by the PJM in the job ticket. The enriched and changed PCL data stream is then spooled in the system.

***Attention:***
In V3.10.06, the configuration file '/u/prismapro/lib/pcl_filter/config.txt' had to be edited on a command line basis and the user was able to set PCL replacement commands only on the system level. With version V4.00, the user is now able to define the PCL replacement commands with the job-specific PJM-GUI. In V4.00 the PCL file properties dialog replaces the configuration file. The 'config.txt' file is not used anymore.
For the definition of the special PCL Filter commands "-PJL" / "-DFF" and complex UP3I replacement commands, please use the second PCL Filter based in the PJL driver. This filter uses the configuration file '/u/prismapro/cfg/backend_filter/config_out.txt'. This configuration file has explicit inline description in the file and is used globally for all PJL drivers on this server. In the future this file will also be replaced by a properties window in the PJM.

## PCL Replacement

PCL commands provide access to the printer's PCL control structure. The PCL structure controls all features of the printer. PCL printer commands (other than single-character control codes) are also referred to as escape sequences.
PCL replacement is a possibility to change PCL printer commands (or escape sequences). This function allows to control the features of one particular printer or to change PCL applications device-independent.
Some PCL applications are so complex that it is necessary to use a set of different PCL replacements to adjust them to special printers. So the best way for PCL replacement is the possibility of universal changing in PCL data stream, which allows covering its diverse modifications. The most useful PCL replacements are summarized in the following table:

| Examples for PCL Replacement | Usual Dependencies |
|---|---|
| Simplex/Duplex print | Printer-dependent. |

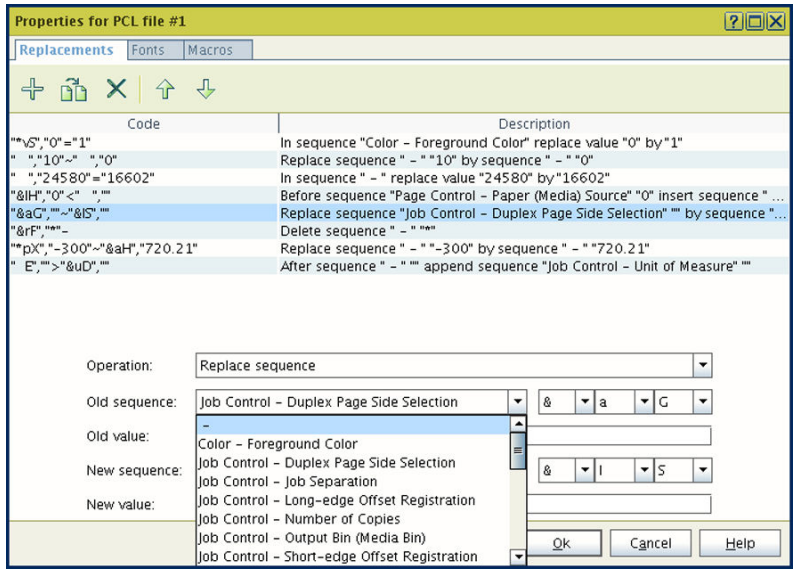
| Examples for PCL Replacement | Usual Dependencies |
|---|---|
| Paper size | Especially interesting for fanfold printers like for VS9000 and VS10000. |
| Paper orientation | Both, printer and application dependent. |
| Input tray | Printer-dependent. |
| Output tray | Printer-dependent. |
| Foreground Color | Both, printer and application dependent. |
| Job Separation | Both, printer and application dependent. |
| Delete all UP3I PCL sequences | Printer-dependent. |
| Offset PCL setting | Printer-dependent. |
| Delete all offset PCL sequences | Printer-dependent. |
| Move margins (top, horizontal, etc.) | Especially interesting for fanfold printers like for VS9000 and VS10000. |

**Ticket Parameters**

| Paramater [files] | Description | Example (string) |
|---|---|---|
| PJL_ESC_ PCLFILTER | Multiply input PCL filter commands may be specified, separated by ';' | "*vS","2"="3"; "&lZ","*"- |
| PJL_FONTS | Multiply font file names may be specified, separated by ';' | Font1.sfs;Font2.sfs; Font3.sfs |
| PJL_MACROS | Multiply macro file names may be specified, separated by ';' | Macro1.pcl;Macro2.pcl; Macro3.pcl |

Please note that the example string is for reference/analyze purpose. It is not necessary for a user to understand the syntax of the strings in the PJM Ticket. With the properties dialog you can build these stings in an easy and user friendly way.
The semicolon separated lists of values may not have spaces for example before or after the ";" or "=" character. A space character as part of the PCL escape sequence itself with the quotes is obviously allowed.

## PCL File Properties: Replacement Tab


Properties for PCL file #1
Replacements
Fonts
Macros
Code
Description
"*√S","0"="1"
In sequence "Color - Foreground Color" replace value "0" by "1"
" ","10"~" ","0"
Replace sequence " - " "10" by sequence " - " "0"
" ","24580"="16602"
In sequence " - " replace value "24580" by "16602"
"&lH","0"<" ",""
Before sequence "Page Control - Paper (Media) Source" "0" insert sequence " ...
"&aC","~"&lS",""
Replace sequence "Job Control - Duplex Page Side Selection" "" by sequence "...
"&rF","*"-
Delete sequence " - " "*"
"*pX","-300"~"&aH","720.21"
Replace sequence " - " "-300" by sequence " - " "720.21"
" E","">"&uD",""
After sequence " - " "" append sequence "Job Control - Unit of Measure" ""
Operation:
Replace sequence
Old sequence:
Job Control - Duplex Page Side Selection
Old value:
New sequence:
New value:
-
Color - Foreground Color
Job Control - Duplex Page Side Selection
Job Control - Job Separation
Job Control - Long-edge Offset Registration
Job Control - Number of Copies
Job Control - Output Bin (Media Bin)
Job Control - Short-edge Offset Registration
Ok
Cancel
Help

The following operations are supported, each designated by a single operation command character:

| Operation Command Character | Description |
|---|---|
| = | Replace the value within the PCL sequence with a new value.<br>"<PCL Sequence>", "<old value>" = "<new value>" |
| ~ | Replace entire PCL sequence with a new PCL sequence.<br>"<PCL Sequence>", "<old value>" ~ "<new PCL Sequence>", "<new value>" |
| - | Delete PCL sequence.<br>"<PCL Sequence>", "<value>" - |
| > | Append (add) a new sequence AFTER this one.<br>"<PCL Sequence>", "<value>" > "<new PCL Sequence>", "<new value>" |
| < | Insert a new sequence BEFORE this one.<br>"<PCL Sequence>", "<value>" < "<new PCL Sequence>", "<new value>" |

"<PCL Sequence>" means a 3 character string containing only:

- The Parameterized character.
- The Group character (or a ' ' character).
- The Terminating character (use upper case letters).

For example: "(sT" or "*vS".

In order to define one replacement rule, you may follow these steps. For example:

| Step | Action |
|---|---|
| 1 | Add a new rule clicking the "+" icon in the tool bar. |
| 2 | Choose an 'Operation', for example "Replace Sequence". |
| 3 | Choose the 'Old Sequence' you want to replace. |
| 4 | Choose the 'New Sequence' you want to use. |

The other operations work respectively. Unused fields are grayed out. For example for the operation 'Delete' the fields 'New Sequence' and 'New value' cannot be used. You may define several replacement rules. Each line of this table represents one rule.

*Note:*
You need a certain PCL knowhow to use this feature. On purpose, there is no checking for the range of parameters/values, because the PCL code of the input file may not be within the specification and therefore a parameter check may not be useful.
The GUI allows full flexibility so far choice of sequences and values are concerned. This requires -- on the other hand --a certain PCL expertise of the user of this GUI. You may choose escape sequences via an easy-to-use list of predefined sequences on the left hand side or alternatively via the 3 character string on the right hand side, which allows flexible definition of PCL escape sequences via their 3 character representation.

## PCL File Properties: Fonts and Macros Tabs

With these tabs, PCL fonts and macros can be defined. These resources will then be embedded in the beginning of the respective PCL data file.
These PCL fonts and PCL Macros, which fit to the respective application/files, must be provided by the user in the "$RESOURCES-SHARED" library, (usually '/u/prismapro/resources/shared', which is a link to '/u/cust/resources/shared'.).
It is recommended to use the 'Server Files' application, to create PCL and application related subdirectories. These subdirectories under the "$RESOURCES-SHARED" library

allow to distinguish for example AFP and PCL resources or PCL resources dedicated for specific PCL Applications/Files.
If the 'Server Files' application is used, the resources are automatically shared with the other server of the Océ PRISMAproduction Server cluster. If these resources are copied manually, please copy the resources to all servers.

# PCL-Module: Syntax of the Native PCL Filter

## Introduction

**PCL Sequences**: "<PCL Sequence>" means a 3 character string containing only:

- the Parameterized character
- the Group character (or a ' ' character)
- the Terminating character (use upper case letters)

Do not include the escape character or value.

Syntax example : "(sT" or " E"
[<esc>(s16602T], [<esc>E],

## Examples

Examples for replacing values within the PCL sequence with new values:

General syntax: "<PCL Sequence>", "<oldvalue>" = "<newvalue>"

| Operation | Replace Value | Syntax |
|---|---|---|
| Foreground Color | Change <esc>*v2S to <esc>*v3S | "*vS" , "2" = "3" |
| Input Tray (Paper (Media) Source) | Change <esc>&l2H to <esc>&l7H (from main paper source to autoselect) | "&lH" , "2" = "7" |
| Output Bin | Change <esc>&loG to <esc>&l1G (from automatoc selection to Upper Output Bin) | "&lG" , "0" = "1" |
| Simplex/Duplex Print | Change <esc>&loS to <esc>&l1S (from simplex to duplex, long-edge binding) | "&lS" , "0" = "1" |
| Page Size (Media Name) | Change <esc>&2A to <esc>&l26A (from Letter to A4) | "&lA" , "2" = "26" |

Examples for replacing the entire PCL sequence with a new PCL sequence:

General Syntax: "<PCL Sequence>", "<oldvalue>" ~ "<new PCL Sequence>", "<newvalue>"

| Operation | Syntax |
|---|---|
| Change the primary symbol set 10U (PC-8) to 0N (ISO 8859/1 Latin 1): | "( U" , "10" ~ "( N" , "0" |
| Replace Horizontal Cursor Positioning from PCL Units to decipoints: | "*pX" , "+300" ~ "&aH" , "+720.01" Input: <esc>*p+300X Output: <esc>&a+720.01H |

Examples to delete PCL sequences:

General syntax: "<PCL Sequence>", "<value>" -

| Operation | Delete Action | Syntax |
|---|---|---|
| Offset Registration | Delete all offset PCL sequences | "&lZ" , "*" - |
| UP3I PCL sequences | Delete all UP3I PCL sequences | "*uW" , "*" - |
| | Remove all PJL | -PJL |

Example for appending (adding) a new PCL sequence AFTER this one:

General Syntax: "<PCL Sequence>", "<value>" > "<new PCL Sequence>", "<newvalue>"

| Operation | Syntax |
|---|---|
| Add a Unit of Measure command AFTER every <esc>E reset: | " E" , "" > "&uD" , "600" Note: empty value field after the " E" Input: <esc>E Output: <esc>E<esc>&u600D |

Example for inserting a new PCL sequence BEFORE this one:

General Syntax: "<PCL Sequence>", "<value>" < "<new PCL Sequence>", "<newvalue>"

| Operation | Syntax |
|---|---|
| If you want to replace the UEL *AND* strip the PJL, it will only work if you use the insert sequence command '<' | "% X", "-12345" < " E", "" -PJL This insertes before every UEL(<esc>%-12345X) the <esc>E and removes the PJL commands |

## Special Case:

Instead of a "<new PCL sequence>" , "<new value>", the replacement can be a string starting with 'X', and containing text or hexadecimal bytes, each starting with "\x" and having exactly 2 hex digits, for example: "\x1B"; up to 255 bytes.
This string may NOT be used as a search string on the left side of an operation character.
For example, to replace job separation <esc>&l1T with the complex UP3i command for a UP3i stacker:

"&lT", "1"
~"X\x1B*u15W\x00\x01\x00\x0D\x03\x00\x08\x00\x01\xFF\x00\x00\x00\x00\x00"

# PCL-Module: Print Parameters

## LI (=Logical Interface Section)

| Parameter=Default Value | Description |
|---|---|
| DUMMYDEV=0 | Enable or disable the internal printer simulator.<br>0 Printer simulator disabled<br>1 Printer simulator enabled |
| TRACEFILE='/u/prismapro/diag/printers/<Printername>.trc' | Filename of the trace file.<br>The name must be unique for each configured printer (Printer name is the logical name of the printer). |
| TRACEFLAGS=0x012F | Flags to turn on tracing of categories individually.<br>Errors are always logged regardless of this setting.<br>0x0001 network<br>0x0002 printer<br>0x0004 page description language<br>0x0008 spool<br>0x0010 parsing of readback<br>0x0020 job parameters<br>0x0040 verbose printer messages<br>0x0100 dump printer data stream to file |
| TRACELEVEL=0 | Tracelevel:<br>0 errors only<br>1 warnings<br>2 messages<br>3 questions<br>4 logging<br>5 diagnosis |

## PDSINFO Section

| Parameter=Default Value | Description |
|---|---|
| CKPTPAGE=10 | Trigger for writing a checkpoint after at most nnn pages. |
| CKPTTIME=1000 | Trigger for writing a checkpoint after at most nnn seconds. In units of 1/1000 seconds. |

| Parameter=Default Value | Description |
|---|---|
| DSFORMAT=0,0,7,0,0 | Selects printing of HDR,SEP,TXT,MSG, TRL pages.<br>HDR<br>■ 0 disables printing of Header pages<br>■ 1 enables printing of Header pages<br>SEP<br>■ 0 disables printing of Separator pages<br>■ 1 enables printing of Separator pages<br>TXT<br>■ must be 7<br>MSG<br>■ must be 0<br>TRL<br>■ 0 disables printing of Trailer pages<br>■ 1 enables printing of Trailer pages |
| JOBCNTRL=-1 | Specifies job processing at the end of job:<br>1 do not accept every end of job, only for the last job in the queue<br>(-> higher printing performance)<br>-1 accept every end of job |

## PJL Section

| Parameter=Default Value | Description |
|---|---|
| CSE=1 | The printer has/does not have the so called "cut sheet emulation".<br>This feature is unique to OPS printers and will be disabled automatically<br>if the printer query states that it is not present in the printer.<br>0 Printer does not have "cut sheet emulation"<br>1 Printer has "cut sheet emulation" (OPS printers only) |
| DUMMY_LIMITED=0 | Enable or disable limited dummy job.<br>If limited dummy job is enabled, then the limited dummy job will be sent to the printer.<br>0 limited dummy job disabled<br>1 limited dummy job enabled |

| Parameter=Default Value | Description |
|---|---|
| MEDIA_ATTRIBUTES=0 | The printer supports/does not support media attributes inquiry in Windows Application Driver data stream.<br>0 The printer does not support media attributes inquiry<br>1 The printer supports media attributes inquiry |
| READBACK=1 | Enable or disable PJL readback. If readback is enabled, the presence of certain printer features will be queried for via PJL and disabled automatically if they are not present.<br>0 PJL readback disabled<br>1 PJL readback enabled |
| SET_ESCE=1 | Enable or disable setting of <ESC>E<br>0 disabled<br>1 enabled<br>If enabled, a Printer Reset is sent to the printer after each print job. |
| SET_EXT_OFFSET | Extended job offset specifies which job offsets take effect:<br>0 Only PCL job offset takes effect<br>1 Both PJL and PCL job offset take effect<br>2 PJL and PCL job offset suppressed<br>3 Only PJL job offset takes effect<br>Values "1", "2" and "3" are valid for OPS printers only. |
| SET_OFFSET=1 | The printer supports/does not support job offset via PJL<br>0 disables offset<br>1 enables offset<br>For switching the PJL command SET OFFSET is used. |
| SET_OUTBIN=0 | 0 No setting of output tray via PJL<br>1 Setting of internal output tray UPPER<br>2 Setting of internal output tray LOWER<br>101 Setting of output tray EXTERNAL<br>102 Setting of output tray EXTERNAL2 |
| SET_PRINTFILE=0 | Enable or disable setting of print file output to check the output print file.<br>If set to 1, the output print file will be written in directory: '/u/prismapro/diag/printers/<printer name>.prn'<br>0 setting of print file output disabled<br>1 setting of print file output enabled |
| SET_TIMER=0 | Enable or disable setting of the timer for dummy job inquires.<br>0 setting of timer disabled<br>1 setting of timer enabled |

| Parameter=Default Value | Description |
|---|---|
| STATUS_TIMED=1 | Enable or disable setting of the regular inquire for the printer status.<br>0 setting of inquire disabled<br>1 setting of inquire enabled<br><br>*Note:*<br>For Functional Code V3.05.XX and lower: In the Printer Parameter Section PJL set "STATUS_TIMED" on 0. Default setting on 1 may give unpredictable results. |
| USE_PJL=1 | Enable or disable PJL job control and PJL printer info<br>0 PJL disabled<br>1 PJL enabled |

# Chapter 7
# Configuration

# Overview and Usage of the Configuration Interfaces

## Configuration Overview

### Introduction

The configuration interfaces are used to configure an Océ PRISMAproduction Server system. This entails defining which computers are to belong to the network, and which printers, job classes, etc. are to be made available for users to choose from.
You also use the configuration interfaces to define, manage and modify resources and permit resource sharing, and to make general system settings.
The configuration data is stored in the central database on the master. This data is available to all the computers in the network. You can edit the configuration data on the master via any of the servers in the system.
The users **admin** and **service** are authorized to edit configuration data; the users **applic** and **operator** can only access the data for viewing.
Click '&Add Workspace' -> 'Configuration' in the Océ PRISMAproduction Server 'Explorer'**View** menu. All configuration applications appear one below the other and can be launched with a single cllick of the mouse. If you click with the right mouse button in the list, you can sort the entries alphabetically.

*Note:*
The manual presents the descriptions of the configuration interfaces in the order of the list shown below. The list is not sorted alphabetically.

*Note:*
See also: *'General Usage of the Configuration Applications'* on page 256.

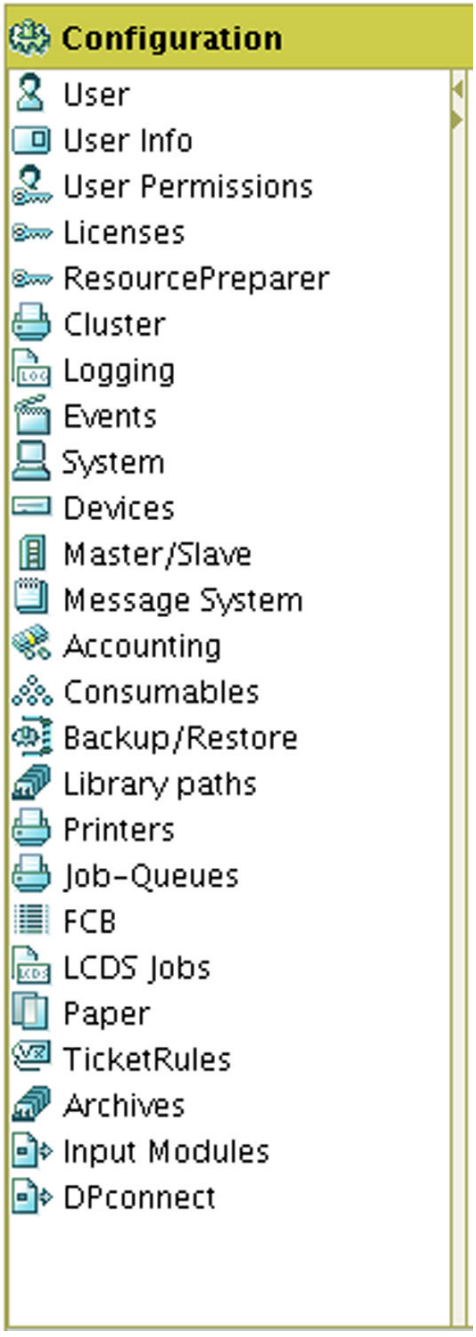
### Definition

By default no application is launched if you open the 'Configuration' entry in the 'Explorer'. If you click with the right mouse button into the application list, a context menu is displayed with the following entries:

- 'Sort alphabetically': If you enable this check box, the applications in the list will be sorted alphabetically.
- 'Restore selection on reopening': If you activate this check box, the selected application will be reopened every time the 'Configuration' workspace is opened again.

The following items can be configured and will be described in the subsequent chapters:

## Illustration



## Configuration Context Menu

The following menu appears if you click the list of configuration applications with the right mouse button:

If you activate the 'Sort alphabetically' entry, you can sort the list alphabetically.
If 'Restore selection on reopening' is marked, the application which you have used before is reopened automatically every time you start the Océ PRISMAproduction Server 'Explorer' or reopen the 'Configuration' session within the 'Explorer'.

## Configuration Applications

| Application | Description | See... |
|---|---|---|
| 'User Management' | Central administration of users and user permissions | *"User Management': Overview"* on page 258 |
| 'Cluster' | Create cluster of the type 'Printer' or 'Jobsplitting' | *"Cluster' Configuration"* on page 276 |
| 'Logging' | Enable or disable logging for the different processes (also called 'servers') in the Océ PRISMAproduction Server system. | *"Logging"* on page 278 |
| 'Events' | Define special events, which control the start of a print job. | *"Events' Configuration"* on page 280 |
| 'System' | Configure basic system-, ODS-, and job parameters | *"System Configuration': Overview"* on page 281 |
| 'Devices' | Define devices (tapes, floppies, network devices ...) and link them to computers of the Océ PRISMAproduction Server system. | *"Devices' Configuration"* on page 298 |
| 'Master/Slave' | Set up all computers within an Océ PRISMAproduction Server system and define if they are Master, Slave or PrintSlave. | *"Master/Slave' Configuration"* on page 301 |

| Application | Description | See... |
|---|---|---|
| Message System | Central configuration of the message system:<br>■ Language support<br>■ Deleting messages automatically<br>■ Saving messages automatically to an external file<br>■ Automatic answers to messages to question dialogs<br>■ Actions triggered by certain messages<br>■ Suppression of the view of messages in the messages window | *'Message System: Overview'* on page 304 |
| 'Licenses' | Manage all licenses in the system (import, export, delete or modify). | *"Licenses"* on page 313 |
| 'Accounting' | Configuration of the accounting database access and of the accounting legacy files. | *"Accounting' Administration: Overview'* on page 316 |
| 'Consumables' | Pre configure consumables, which are then available for maintenance in the 'Printer Pool' application.<br>The application also provides a complete list of all available toner colors, from which you can create and save own color names and values. | *"Consumables' Configuration'* on page 322 |
| 'Backup/Restore' | Save or restore a configuration of the system. | *"Backup/Restore': Window'* on page 330 |
| 'Library paths' | Configure the physical path of the default libraries. | *"Library path configuration"* on page 337 |
| 'Printers' | Set up and configure all printers and their parameters in the Océ PRISMAproduction Server system. | *'Printer Configuration: Overview'* on page 339 |
| 'Job Queues' | Create all job queues, which can be assigned to the printers in the Océ PRISMAproduction Server network. | *"Job Queues Configuration"* on page 375 |
| 'FCB' | Configuration of Forms Control Buffer. | *"FCB' Configuration'* on page 378 |

| Application | Description | See... |
|---|---|---|
| 'LCDS Jobs' | Configuration tool for LCDS printing. | *'LCDS Parameter Configuration: 'LCDS Jobs' Window'* on page 385 |
| 'Paper' | Define special media which you like to use in the system. (See also *'Workflow Media Assignment to Printers'* on page 583) | *"Paper' Configuration Tool'* on page 413 |
| 'Ticket Rules' | Use this feature to change ticket parameters depending on other ticket parameters at job submission time. | *"TicketRules': Introduction'* on page 416 |
| 'Archives' | Create, modify or mirror archives for print data of the POD-Module. | *"Archives': Overview'* on page 441 |
| 'Input Modules' | In these dialogs you can configure the input queues for automatic job generation when data are received via input channels (LP-In, LP-Out, HotDir, Download). | *"Input Modules': Overview'* on page 460 |
| 'DPconnect' | DPconnect enables you to print jobs, which have been sent from a DigiPath workstation, on an Océ Océ PRISMAproduction Server system with the POD-Module. | *"DPconnect' Functionality'* on page 147 |

# General Usage of the Configuration Applications

## Introduction

Because of the database concept, some icons and control elements appear with the same functionality in many of the configuration applications. This chapter explains these elements and will be referred to in the subsequent chapters.

## Editing configuration data

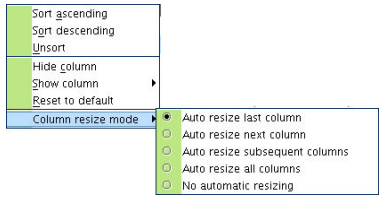
The configuration data is stored in the form of database tables. Each table consists of rows and columns. When you select a row, you can edit its contents provided its value is not derived from values in other fields. To modify a column entry, double click it with the mouse. There is a standard set of functions and icons for editing tables:

Configuration Icons

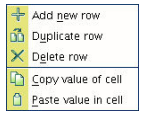
| Icon | Description |
|---|---|
| Add new Row / Item | Inserts a new row or item following the selected one. |
| Delete Row / Item | Deletes the selected row or item. |
| Reload /Discard all Changes | Shows the actual status of the data stored in the database. Any changes that you have made via the interface are discarded if you do not save them prior to executing this function. |
| Save | Saves to the database any changes that you have made via the interface. |
| Duplicate Row / Item | Duplicates a row or an item in the database. The entry can be modified afterwards. |

## Context Menus

If you click with the right mouse button on a column title a context menu opens with functions to sort the list or to hide and display colums.




If you click with the right mouse button in the list a context menu opens with commands to insert or delete rows.




## Predefined Entries in Tables

If a column must contain a predefined entry, a double click on the column displays a list of the entries you can pick.

# 'User Management'

## 'User Management': Overview

### Introduction

Basic information on users and permissions can be found in *'User IDs and Access Rights'* on page 62.

Generally all applications have to log on to Océ PRISMAproduction Server to get access to the functions of the server applications like the 'Explorer' server or License server. This takes effect either within the system for the connection between master and slave or (even more) for a connection from outside the system, for example via a Windows workstation with the 'Explorer' Launcher.

Basically a user can log on to Océ PRISMAproduction Server from every server within an Océ PRISMAproduction Server cluster or from every workstation which is connected via LAN.
A user logs on with user name and password. The login data can be verified either by Océ PRISMAproduction Server or by LDAP. Océ PRISMAproduction Server supports different user types by means of different login and authorization mechanisms:

- **External Users** (Option: Authorization='External')
  This user mainly works on an external workstation. Access to Océ PRISMAproduction Server is probably only one of his tasks. This user does not need a user name on the Linux server. User name and password are always requested in the log in dialog. The user account is saved within Océ PRISMAproduction Server and is checked by Océ PRISMAproduction Server on every user log on.
- **LDAP User** (Option: Authorization='Ldap'
  In contrast to the "External User", the log in data are kept on the LDAP server and authorization is performed via LDAP.
  After a successfull authorization, LDAP users are assigned to the 'Permission Groups' which has been defined in 'System Configuration'-> *"System Configuration': LDAP Parameter'* on page 290. If other 'Permission Groups' should be assigned to particular LDAP users, this has to specified in the user management.
  See also: *"User Management': LDAP Support'* on page 262
- **User with Account on the Master Server** (Option: Authorization='auto')
  Since Océ PRISMAproduction Server is installed on a Linux server, the Linux user name can also be used for the Océ PRISMAproduction Server login. If the user logs in from a terminal within the Océ PRISMAproduction Server cluster using the Linux user name, he does not have to indicate an Océ PRISMAproduction Server user name and password. The login to Océ PRISMAproduction Server is performed automatically.

Océ PRISMAproduction Server considers this user as trustwothy, because his data have already been checked by Linux.

*Note:*
The functionality of the Linux desktop depends on the user role of the Linux user name

## 'Permission Groups' and Default User

In order to provide **permissions** for users within Océ PRISMAproduction Server, these users are assigned to 'Permission Groups'. A 'Permission Group' contains a specific user role and a set of editable permissions. New 'Permission Groups' can be created and assigned to users in the user management.
See *"User Management': 'User Permissions"* on page 271

Océ PRISMAproduction Server users **admin**, **service**, **applic** and **operator** are preconfigured as basic users. Predefined permissions groups with the same names are assigned to these users.

*Note:*
These basic users and basic 'Permission Groups' cannot be modified or deleted (*'User IDs and Access Rights'* on page 62.

## Login with Authorization=Auto

Basically the user of an Océ PRISMAproduction Server system should be able to work under the same conditions in every environment (Master, Slave or from a LAN-connected workstation), this means with the same windows and with the same functionality.
To get access to Océ PRISMAproduction Server, a login, which requires a valid access permission, is always performed.
The difference is, whether the login on the Linux system is performed on a dedicated Océ PRISMAproduction Server server (Master or Slave) or from outside (from a workstation), where Océ PRISMAproduction Server is only one application among others.
The user of the Océ PRISMAproduction Server server, who is already able to work with the Linux system after logging in, has also the authorization to work with Océ PRISMAproduction Server without an extra login dialog, this means, the login procedure to Océ PRISMAproduction Server is performed automatically (Authorization=Auto).
On the contrary the access to Océ PRISMAproduction Server must not be automatically allowed when logging on to the operating system of the workstation via the network.
The Océ PRISMAproduction Server system administrator is able to define if the user is allowed to login to Océ PRISMAproduction Server automatically or not, when creating

the user with the option Authorization=Auto. If the account should only be used in the network, the option should be set to 'External'.

**Authorization=Auto (Auto Login)**

Authorization=Auto means, that the logon to the operating system automatically implies the logon to Océ PRISMAproduction Server.
Auto-login is generally possible on all computers of the Océ PRISMAproduction Server system (Master and Slave), if the Linux user is registered in the Océ PRISMAproduction Server data base as Océ PRISMAproduction Server user. This is the case

- with all four default users on Master and Slave servers (admin, service, applic, operator),
- on the Master if the account was created with the option Authorization=Auto in the Océ PRISMAproduction Server user administration,
- on the Slave if the user name created for the Océ PRISMAproduction Server login is the same as the one created for the Linux login (via KDE).

Auto-login is not possible if you access Océ PRISMAproduction Server from outside (via workstation). In this case you always have to confirm a separate login dialog.

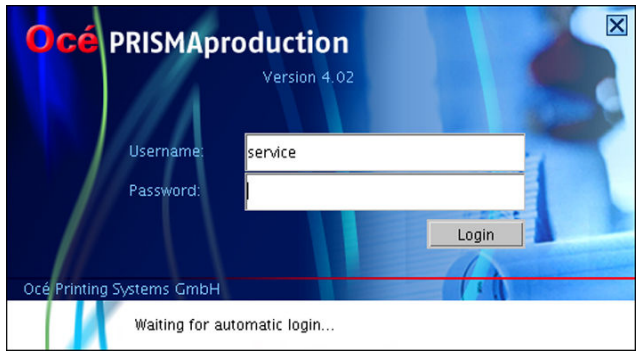
**Important: Auto Login on Slaves**

The four default users are created on every Océ PRISMAproduction Server computer (master or slave) in the Océ PRISMAproduction Server database and also in the operating system.
Please note that Océ PRISMAproduction Server only supports the additional creation and administration of user names with the option Authorization=Auto **on a Master**! This means a new auto login user name is only created in the database and the operation system of the master (and nowhere else). This means also that changes of the default accounts (for example a different password) are only performed in the Océ PRISMAproduction Server database and in the operating system of the master. Consequently you have to perform these changes on every slave by hand in order to access the slaves in the same way as the master.

## Login Dialog

The login dialog requires the entry of a valid username and a corresponding password. The login dialog appears

- if the logon is performed from outside (for example via the **'Explorer' Launcher**)
- on a Master or Slave, if the Linux user is not registered as Océ PRISMAproduction Server user in the Océ PRISMAproduction Server data base.




## User Interfaces

The following user interfaces can be used to administrate users and 'Permission Groups':

**'System Configuration' -> 'User'**(*"'User Management': 'User'"* on page 264)
Create and modify users and establish membership to a group of permissions.

**'System Configuration' -> 'User Permissions'**(*"'User Management': 'User Permissions'"* on page 271
Create new groups of permissions by copying existing groups and switching permissions on or off.

**'System Configuration' -> 'User Info'**(*"'User Management': 'User Info'"* on page 269)
Modify user specific data: Name, Mail, ... Language of the Océ PRISMAproduction Server 'Explorer' user interface (not of the operating system).

If a user has no permissions to create users and groups, the entries 'User' and 'User Permissions' do not exist. Only the 'User Info' application always exists. Minor modifications (for example changing the language for a user) are possible here. The 'User' and 'User Permissions' applications can be opened with write permission only once. The user, who is the first to open the respective application, is granted write permission. All others only get read permission.

# 'User Management': LDAP Support

## Introduction

Océ PRISMAproduction Server supports the authorization via LDAP (Lightweight Directory Access Protocol). This has some advantages, for example:

- Security mechanisms of LDAP can be used (for examle deterioration of passwords)
- Enables the user to work with the same login data on different platforms.

The general data of the user and above all the essential login data (user name and password) are kept **only** in the LDAP data pool. On the user login, Océ PRISMAproduction Server tries to find the user name in the in the Océ PRISMAproduction Server data base. If the user cannot be authorized in this way, Océ PRISMAproduction Server tries the login via the LDAP server. If LDAP has authorized the user, he is allowed to access Océ PRISMAproduction Server.

## Test Connection to the LDAP Server

In order to authorize via LDAP, Océ PRISMAproduction Server needs information to connect to the LDAP server. These connection parameters must be supplied in the 'System Configuration'. To ensure a correct connection to the LDAP server, the Océ PRISMAproduction Server administrator can establish a test connection with his data. At this point the administrator receives significant error messages why the connection or the authorization fails. For security reasons, on a normal login only a general error message is issued, if the login fails.

To test the connection (and only for this reason), the administrator has to provide a valid LDAP user name with password. If Océ PRISMAproduction Server reports a successful connection, the administrator can assume, that other LDAP users, who can be found in the same LDAP structure and who have a password, are also able to log on to the system.

The essential data of an LDAP user - user name and password as well as other user data - are not stored and updated in Océ PRISMAproduction Server. These data are only displayed in Océ PRISMAproduction Server.
If there are no entries in the Océ PRISMAproduction Server user management done for the LDAP user, he works with the default permission group for LDAP users, which can be edited in 'System Configuration' -> 'LDAP Parameter' -> 'LDAP Integration Properties'.
In order to grant an LDAP user specific permissions, this user has to be added to the Océ PRISMAproduction Server user administration. Therefore this user is added with the property "Authorization=Ldap". This option means that only Océ PRISMAproduction Server-specific data are stored in Océ PRISMAproduction Server (e.g. permission group and language setting). The general data (for example address, phone number) and above

all the login details user name and password are managed in LDAP. The user name, which has to be defined in the Océ PRISMAproduction Server user administration, is only used to assign the Océ PRISMAproduction Server-specific permissions to the correct LDAP user.

## Mapping LDAP Attributes to Océ PRISMAproduction Server Fields

Every LDAP data pool which is used for user administration usually contains a number of predefined attributes (according RFCs 2798/2256). These attributes mainly conform to the fields in the Océ PRISMAproduction Server user administration. The attributes of the RFC are assigned to the matching Océ PRISMAproduction Server fields per default. If the LDAP scheme of the customer differs from the default, it is possible to assign not matching attribute names. This can be done with the **Mapping** function in 'System Configuration' -> 'LDAP Parameter'.
If you call the mapping function, a connection to the LDAP server is established. This is only possible if a valid user name and password is provided. Therefore the mapping function uses the test user name and the test password to set up the connection an to request the data. The data of the 'test user' are then displayed. The modification of the LDAP values is of course valid for all LDAP users.
Océ PRISMAproduction Server uses the detected LDAP values only to display the user data of the user, who is currently logged in, in the **User Info** window. A modification of the user data can only be performed by the LDAP administrator.

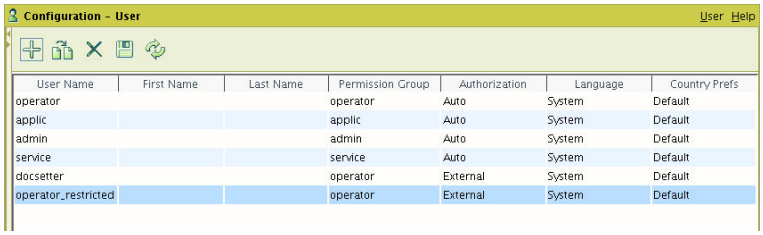
# 'User Management': 'User'

## Introduction

Use this application to create and administrate Océ PRISMAproduction Server users. The table lists the basic data of a user and allows you to make modifications concerning permission group, authorization, 'Language' and the 'Country Prefs'. If you create a new user or if you want to modify all user data, a separate dialog is opened.

*Note:*
Only users in the user roles 'admin' or 'service' are allowed to create new users or to modify existing users.

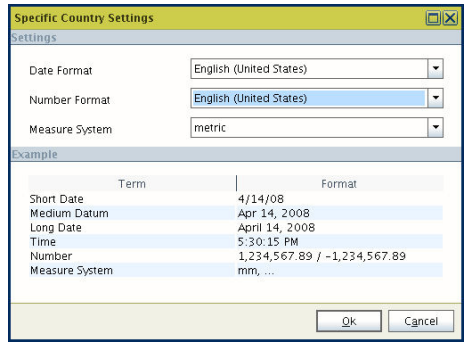
## Illustration




## Columns

| Column name | Description |
|---|---|
| 'Username' | Name of the user which is used for Océ PRISMAproduction Server login. |
| 'First Name' ... 'Last Name' | Personal information on the user, max. 64 characters. |
| 'Permission Group' | Double clicking on this column allows you to assign a 'Permission Group' to the selected user. |

| Column name | Description |
|---|---|
| 'Authorization' | You can modify this setting for existing user names with the 'Authorization' mode 'External' or 'Auto'.<br>You can select three different modes:<br>■ 'External':<br>For external users, who use Océ PRISMAproduction Server only occasionally. All user data are managed within Océ PRISMAproduction Server.<br>■ 'Auto'<br>Indicates that an automatic login on the Océ PRISMAproduction Server master is performed for this user.<br>All user data are managed within Océ PRISMAproduction Server **and** within the operation system. If you activate the auto-login, a system user of the same name will be created. If you deselect this option, the system user will be deleted on the master.<br>■ 'Ldap'<br>The user has an LDAP account. The general user data are kept on the LDAP server. Additional Océ PRISMAproduction Server-specific settings have been made for this user in Océ PRISMAproduction Server. Otherwise this user won't appear here. See *"User Management': LDAP Support"* on page 262 |
| 'Language' | You can modify this setting also for basic users.<br>Here you set the Océ PRISMAproduction Server user language for this specific user. The Océ PRISMAproduction Server System with all its applications is started in this language.<br>If the user language is set to 'System', the current Océ PRISMAproduction Server system language will be used as Océ PRISMAproduction Server user language. This Océ PRISMAproduction Server system language is set under 'Configuration' -> 'System'. |

| Column name | Description |
|---|---|
| 'Country Prefs' | You can modify this setting directly in this table or via the context menu (see below).<br>Using this setting, you can force the system to preset certain default settings in connection to the selected country. For example the presentation of the date in the 'All Jobs' list or the default measure unit in 'Configuration' -> 'Paper'.<br>■ '(Default)'<br>If this option is selected, the global settings which have been defined in 'Configuration' -> 'System' are also valid for this user. See *"System Configuration': 'Country Preferences"* on page 293<br>■ 'CA'/'DE'/'GB'/'US'<br>Predefined country settings can be selected or the settings can be modified by opening the 'Specific Country Settings' dialog (click the button [...]):<br>  <br><br>Here you can select a 'Date Format', a 'Number Format' and a 'Measure System'(metric or imperial) for many countries.<br>The examples are adjusted to the values which are currently set.<br>The default settings are dependent on the user language.<br>If the settings in this dialog do not match with 'US', 'DE','CA' or 'GB', Mixed is displayed. |

If you right click the mouse in the table, a context menu is opened with the following options:

## New User

To create a new user or to modify an existing user:

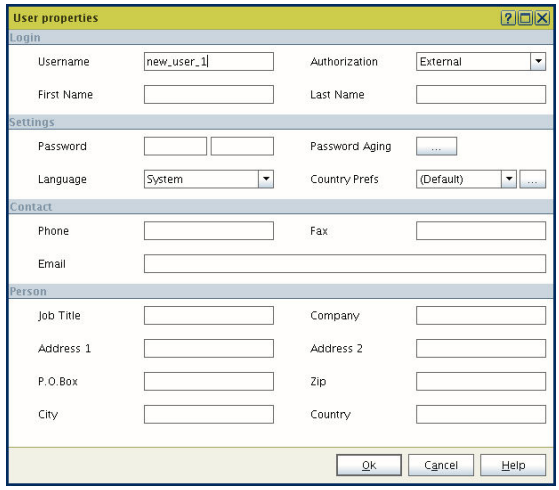
- select from the menu 'User' -> 'New user' or 'Edit user'
- or select 'New user' or 'Edit user' from the context menu

- or click the tool bar icons: + or .

A new user will be created with a default name, which you can modify at once.
When creating a new user the permission group 'operator' is assigned as default group. If you want to assign a different group, you can do this in the table of the basic window after closing the dialog.

*Note:*
If an LDAP user is created here, the user name is only used to assign the Océ PRISMAproduction Server-specific settings to the real LDAP user. In this case general user data cannot be entered because these are managed in LDAP. The fieds for these data are not active.

If you create a new user (or if you modify an existing user via the 'Edit' function), the following dialog opens:




See the table above for a description of the entries you can make in this dialog. Apart from the settings described in this table you can add contact and address information for the new user.
For the E-mail address only letters, numbers and special characters @ _ . - (at symbol, underscore, dot, hyphen) are allowed.

For the password settings refer to *"System Configuration': 'Password"* on page 295. Be aware that the default values in this view are preset by the values which have been set in the 'System Configuration'. Password Aging parameters cannot be edited for users with 'Authorization' = 'Auto'. For LDAP users neither passwords nor Password Aging parameters can be changed.

## Edit User

You modify users using the same dialog as described above. The only difference is that you cannot modify the user name field.
To edit a user

- select from the menu **User** -> **Edit** or
- select **Edit** from the context menu.

## Edit Selected Users

Via multi selection the administrator is able to perform the following modifications for more than one user at the same time:

- User with 'Authorization' = 'Auto': Change password.
- User with 'Authorization' = 'External': Modify password and password aging parameters.

## Copy User

You can copy the currently selected user in the table to create a new user. All settings apart from user name and password are copied in this case. The user name is automatically created and can be modified immediately.
To copy a user

- select from the menu **User** -> **Copy** or
- select **Copy** from the context menu or
- click on the toolbar icon:

For an explanation of the other toolbar icons see the following reference: *'General Usage of the Configuration Applications'* on page 256

## Delete User

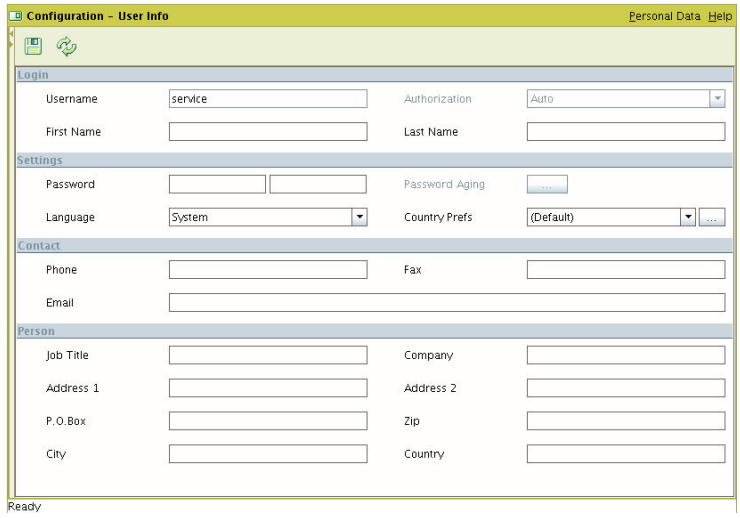
*Note:*
If a user with 'Authorization' = 'Auto' is deleted the home-directory for this user on the linux server ('u/ppuser/<user>') is NOT deleted.

# 'User Management': 'User Info'

## Introduction

Here the data for the user, who is currently logged in, are displayed.

## Illustration




## User Info Window

The information in this window can also be viewed by users who have no permissions for the user management. If the user, who is logged in, is an LDAP user, this window displays the data which is managed by LDAP - as long as the data can be assigned to Océ PRISMAproduction Server fields (see *"'User Management': LDAP Support"* on page 262).

Every user can make or modify the settings for his or her account in this window. This includes also the settings for the user language and the country preferences, which can be different from the global settings in 'Configuration' -> 'System' (see *"'User Management': 'User"* on page 264).

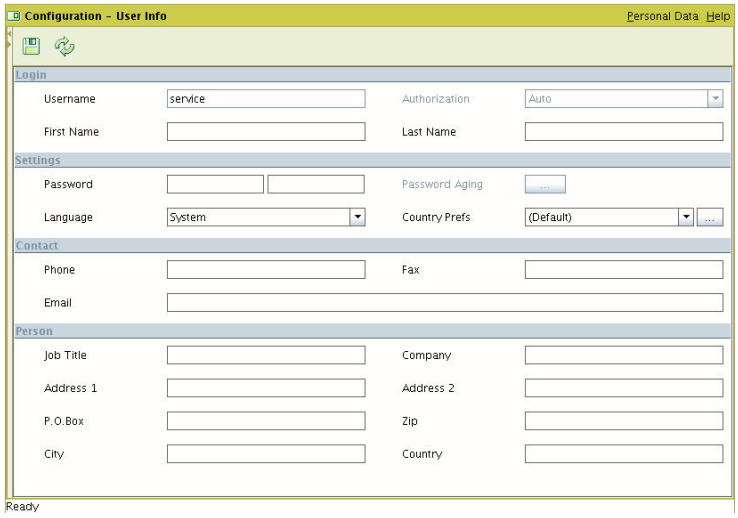
*Note:*
The 'Authorization' settings cannot be modified here.

# 'User Management': 'User Info' for 'operator' and 'applic'

## Introduction

Here the data for the user, who is currently logged in, are displayed.

## Illustration




## User Info Window

The information in this window can also be viewed by users who have no permissions for the user management. If the user, who is logged in, is an LDAP user, this window displays the data which is managed by LDAP - as long as the data can be assigned to Océ PRISMAproduction Server fields.

Every user can make or modify the settings for his or her account in this window. This includes also the settings for the user language and the country preferences, which can be different from the global settings in 'Configuration' -> 'System'.

*Note:*
The 'Authorization' settings cannot be modiefied here.

# 'User Management': 'User Permissions'

## Introduction

This tab displays, which permissions are available for the 'Permission Group' marked. The name and the permissions of the four basic 'Permission Groups'**operator**, **applic**, **admin** and **service** cannot be modified.
To built an individual set of 'User Permissions', you have to create a new 'Permission Group' by copying an existing group ( ).

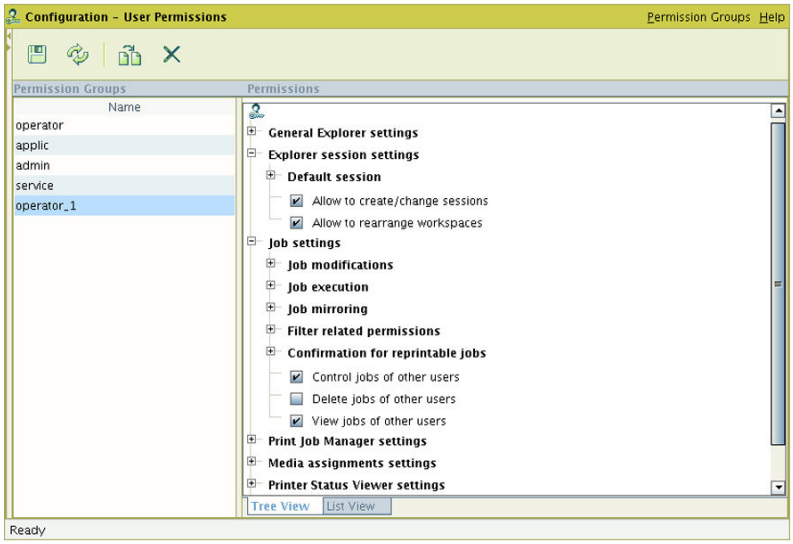
You can immediately modify the default name created. Single permissions for the group can be switched on and off.

*Note:*
Copying the 'Permission Group' copies also the characteristic attributes of the user role in the new 'Permission Group' which you cannot modify later (*'User IDs and Access Rights'* on page 62).

Permissions can be viewed in a tree structure, which groups the entries according to their meaning (the permission either refer to the Jobs Viewer, the PJM, the Messages System and so on). You can also switch to a simple list view using the tabs at the bottom of the window:

***Attention:***
The name and the permissions of the four basic 'Permission Groups'**operator**, **applic**, **service** and **admin** cannot be modified.

## Illustration




## Columns

| Column | Description |
|---|---|
| 'Permission Groups' | Names of the 'Permission Groups' available. (The permissions can only be modified for user defined groups. If one of the basic 'Permission Groups' is marked, the permissions cannot be channged.) |
| 'Permissions' | Displays the status of the permissions for the permission group selected. You can switch between a list and a tree view.<br>In the list view the values can be set to yes (allowed) or no (not allowed).<br>In the tree view you can accordingly check the boxes for the permissions which should be allowed for the group selected. |

## Editable Permissions

**'Accounting server settings'**

- 'Configure accounting'

**'Explorer session settings'**

- 'Allow to create/change sessions'
  **Note**: Without this permission the user cannot create new or open existing sessions. The user is not allowed to create new workspaces in the navigation bar. It is also not possible to add applications to existing workspaces. The respective functions are not available in this case. However the user is still able to move available workspaces into the application area and to combine them.
- 'Allow to rearrange workspaces'
  **Note**: Without this permission the user cannot move workspaces from the navigation bar into the application area and vice versa. The distribution and size of the applications within a workspace can always be modified (for example: PJM smaller, Job List bigger).
- 'Default session'
  **Note**: A default session will be opened if there is no workspace saved for this user on this computer or if the user has none of the session permissions described below. See also chapter "Create and Save User Defined Workspaces and Sessions" in the Océ PRISMAproduction Server User's Guides.

**'General Explorer settings'**

- 'Allow modification of explorer settings'
  **Note**: With this permission the user is allowed e.g. to open the dialog under **File** -> **Preferences**.
- 'Allow to write to $HOME library'
  **Note**: Removing this permission should prevent overloading the home directories from outside. Too much data in theses directories could have a serious impact on the system perfomance.

## General Job Viewer settings

- 'View jobs of other users'
- 'Control jobs of other users'
- 'Delete jobs of other users'

**'Job modifications'**

- 'Release mirrored jobs'
- 'Delete mirrored jobs'
- 'Pass control of mirrored jobs to mirror'
  **Note**: The permissions to handle mirrored jobs are only visible if a valid Interconnectivity license is installed.
- 'Reprint jobs'
- 'Modify user defined filter'
- 'Confirmation for reprintable jobs'
  no: the reprint has not to be confirmed.
  simple: a dialog is issued to confirm the reprint job.

with message: a dialog is issued with the necessity to type in a message (for example the reason for the reprint). The text is shown in the message details window.

- 'Modify form not constrained by filter'
  If this permission is disabled, only the forms which are present in a filtered job list can be modified in the job properties dialog.
- 'Modify job queue not constrained by filter'
  See above.
- 'Modify printer not constrained by filter'
  See above.
- 'Modify printer in jobs of other users'
- 'Modify copies in jobs of other users'
- 'Modify job queue in jobs of other users'
- 'Modify form in jobs of other users'
- 'Modify print range in jobs of other users'
- 'Modify priority in jobs of other users'
- 'Modify file copies in jobs of other users'
- 'Modify Form Definition in jobs of other users'
- 'Modify Page Definition in jobs of other users'

*Note:*
According to the settings you make here, the corresponding fields in the 'Job Properties' dialog in the 'All Jobs' window are enabled/disabled.
**Example**: If the "Modify print range in jobs of other users" permission is set to "no", the "Print range" field in the dialog is not editable.

**'Media assignments settings'**

- 'Allow to create and modify papers'
- 'Allow to create and modify forms'

**'Message server settings'**

- 'Configure message system'
- 'Reply open message requests'
  **Note**: The user is allowed to confirm open message requests like the mount form message.
- 'Delete messages'

**'Print Job Manager settings'**

- 'PJM Expert Mode'
- 'PJM Preparation Mode'
- 'PJM Production Mode'

- 'Allow to set priority on Job Ticket'
  **Note**: the priority of a job can only be set directly in a Job Ticket (not in the PJM window). Nonetheless the PJM leaves the parameter untouched, i.e. if such a job is submitted by the PJM, the priority is considered. If a user tries to submit a Job Ticket containing the priority parameter and does not have this right granted, an error is reported - and no job is submitted.
- 'Allow to mirror jobs'
  **Note**: The permissions to handle mirrored jobs are only visible if a valid Interconnectivity license is installed.

**'Printer Status Viewer settings'**

- 'Reset printer'
- 'Allow to change check for Form-Name'
- 'Allow to change check for DPI'
- 'Allow to change check for Printer-Name'
- 'Allow to change check for Job-Queue'
- 'Allow to change check for Colors'
- 'Allow to change check for Data-Type'
- 'Allow to change Autostart setting'
- 'Allow to change check Message-Receiver'
- 'Claim printer: allow to select other user name'

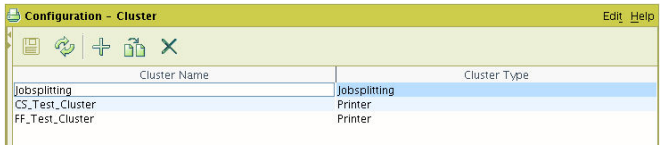
# 'Cluster'

## 'Cluster' Configuration

### Definition

In this case a cluster is a group of printers.
Each printer can belong to several clusters. A printer is addressed either by the cluster name or directly by the printer name. This depends on the settings in 'System Configuration'.
Select 'Printer Configuration' to assign printers to clusters which you have configured.

### Illustration




### General printer cluster (Type = 'Printer')

If a cluster name is specified with a print job, the system picks from the cluster the printer that can execute the job. The selection can be based on factors such as the kind of paper currently loaded in the printer, what job class the printer is currently running, etc. If more than one printer would be able to run the job, load balancing factors come into play – i.e. the job is submitted to the printer which has least to do.

**A few examples of clusters**

- **LB (load balancing) clusters**: Printers of the same type that are selected on the basis of their workload.
- **300 DPI clusters**: 300 dpi printers of various types
- **Test clusters**: Test printers of various types; the selection is made on the basis of paper type, job class, etc.

### Printer cluster for splitting jobs on the basis of copies (Type = 'Jobsplitting')

*Note:*
This cluster type is only available for the POD-Module.

The printout of a job, which contains several job copies can be distributed over more than one printer using the cluster function. To do this, you have to define a cluster of the 'Jobsplitting' type to which you assign at least two printers. In the **PJM** select the cluster name as 'Printer' in the 'Job Parameter' section. The number of jobs created with an own job ID equals the number of printers in the cluster. The jobs will be printed together. If a printer fails, another printer will take over the job. A complete overview on the workflow you find in chapter "Jobsplitting per Job Copies" in the Océ PRISMAproduction Server User's Guides.

To configure printer cluster select 'Cluster Configuration'.

## Column Titles

| Column | Description |
|---|---|
| 'Cluster_Name' | Enter the name you want to assign to the cluster. The name can contain up to 20 characters. No blanks are allowed. You have to convert cluster names with blanks if you update from an older version than 3.02.19. Jobs which use 'old' cluster names must be reassigned: 'Edit properties' in the Job List. |
| 'Cluster Type' | Select the cluster type.<br>'Jobsplitting' is only possible with the POD-Module. |

For an explanation of the menus and tool bar see: *'General Usage of the Configuration Applications'* on page 256

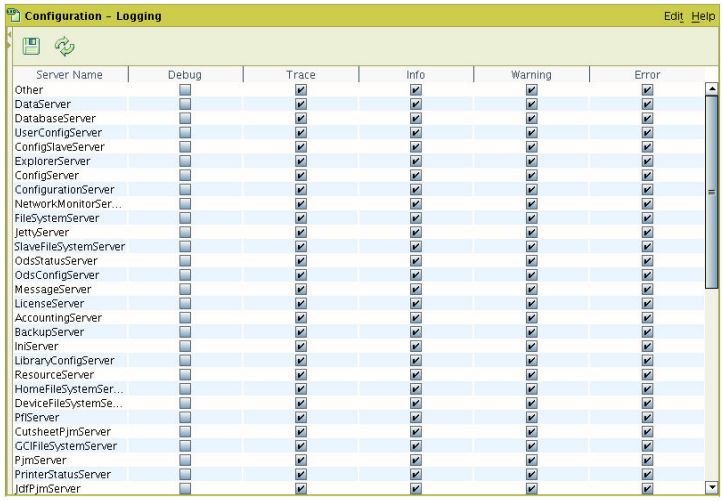
# 'Logging'

## 'Logging'

### Introduction

On this tab you can set up a trace level for every java server application.
Only marked entries in this list are added to the log file.
The log file itself is located in: '/u/prismapro/diag/explorerserver/explorerserver.log'.
After every restart of the system (Reboot/Reset), a new log file will be created and the old one will be saved

### Illustration




### Column Titles

| Column | Description |
|---|---|
| 'Server Name' | Name of the java server. |
| 'Debug' | Log entries of the type debug. Use only for diagnostic reasons. |
| 'Trace' | Log entries of the type trace, logging program sequences. |
| 'Info' | Log entries of the type info, such as connected and disconnected messages. |
| 'Warning' | Log entries of the type warning. |

| Column | Description |
|---|---|
| 'Error' | Log entries of the type error, such as error messages. |

If you click the 'Debug', 'Trace' or 'Info' column with the right mouse button, a context menu opens, which allows you to enable or disable the trace, debug and info protocol levels either for **all** servers or only for the marked cells. Marked cells can also be inverted.

## Example for a Log File

26.07.2004 08:07:36 | TRACE | DataServer.27 getNextEvent() returned event: LOG_PROFILE,changed
26.07.2004 08:07:36 | INFO | ExplorerServer Log profile has changed. Update LogWriter.
26.07.2004 08:07:36 | TRACE | ConfigurationServer.233 postEvent(): event added: DB.LOG_GROUPS,table_changed
26.07.2004 08:07:36 | TRACE | ConfigurationServer.233 getAllEvents() returned 1 events
26.07.2004 08:07:39 | INFO | DeviceFileSystemServer.209 client disconnected.
26.07.2004 08:07:39 | INFO | pfl.server.210 client disconnected. 26.07.2002 08:07:45 INFO ConfigurationServer.233 client disconnected.

For a description of the menu and toolbar icons see: *'General Usage of the Configuration Applications'* on page 256

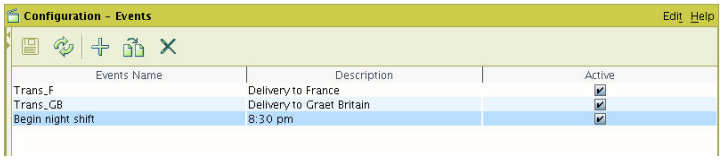
# 'Events'

## 'Events' Configuration

### Introduction

It is possible to make the start of a job dependent on the occurrence of a particular event. Job execution is directed with the "Start Job Events" and "Start Print Events" functions in the **Job Attributes Section** of the PJM (see chapter "Job Attributes" -> "Start Job Events" and chapter "Job Attributes" -> "Start Print Events" in the Océ PRISMAproduction Server User's Guides.
The events that users can choose in the PJM to direct job execution have to be defined using this configuration interface. This interface is also used during processing to confirm the occurrence of a particular event.

### Illustration




### Column Titles

| Column | Description |
|---|---|
| 'Events Name' | Name of the event. This is used in the PJM for directing and controlling the events. A typical event name would be “roll loaded”. |
| 'Description' | For instance “roll with red paper must be loaded on the printer”. |
| 'Active' | Setting an event to “active” state indicates that it has occurred. This setting can also be changed by the operator. |

For a description of the menu and toolbar icons see: *'General Usage of the Configuration Applications'* on page 256.

# 'System'

## 'System Configuration': Overview

### Introduction

This application allows you to make global settings for the entire Océ PRISMAproduction Server system. In detail you can set up parameters on seven different tabs:

- 'ODS Parameter' (Order Distribution System = Océ PRISMAproduction Server network)
  See: *"System Configuration': ODS Parameter'* on page 282
- 'System and Job Parameter'
  See: *"System Configuration': System and Job Parameter'* on page 284
- 'eMail Notification'
  See: *"System Configuration': eMail Notification'* on page 286
- 'Mirroring'
  See: *"System Configuration': Mirroring'* on page 288
- 'LDAP Parameter'
  See: *"System Configuration': LDAP Parameter'* on page 290
- 'Country Preferences'
  See: *"System Configuration': 'Country Preferences"* on page 293
- 'Password'
  See: *"System Configuration': 'Password"* on page 295

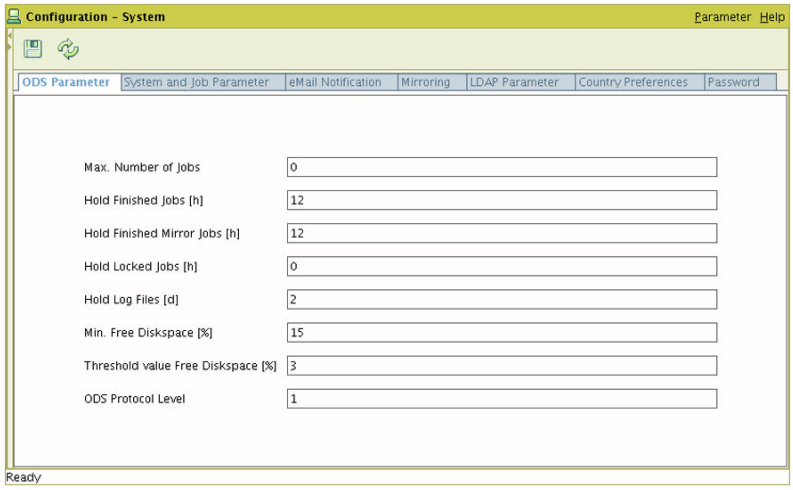
'System parameter' **menu** and **toolbar** see: *'General Usage of the Configuration Applications'* on page 256

# 'System Configuration': ODS Parameter

## Introduction

These parameters control the handling of print jobs, the disk usage and the ODS trace level throughout the Océ PRISMAproduction Server system

## Illustration



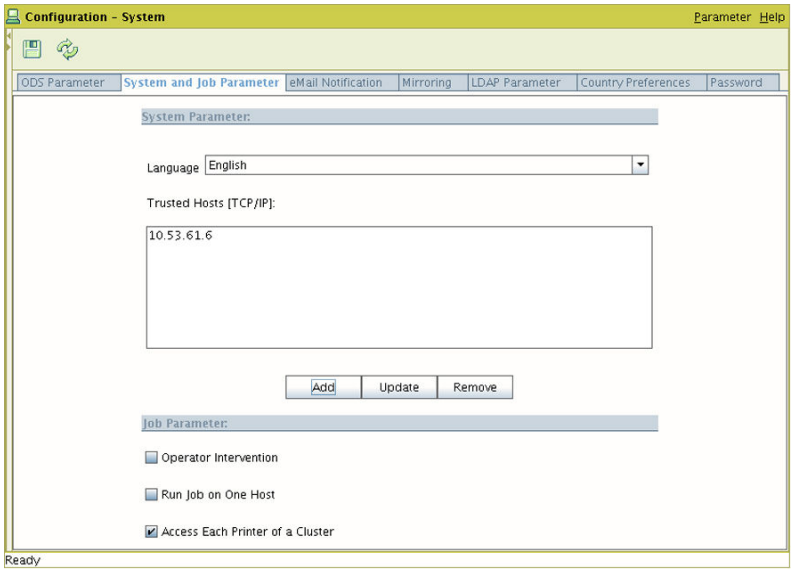

## ODS Parameter

| Parameter | Description |
|---|---|
| 'Max. Number of Jobs' | You can define the maximum number of jobs that can be active simultaneously in the ODS. The default is 0 jobs (no upper limit). Without indicating an upper limit the number of possible active jobs is limited by the setting of the minimum free disk space on the system. |
| 'Hold Finished Jobs [h]' | Use this field to specify how many hours you wish successfully completed jobs to be kept in the job list. The data files belonging to finished jobs are deleted following this time so as to save space.<br>If you enter 0, finished jobs are kept due to system requirements for 70 seconds.<br>Jobs with errors are treated differently: these are kept on the system until they are actually removed.<br>Default: 12h |

| Parameter | Description |
|---|---|
| 'Hold Finished Mirror Jobs [h]' | Number of hours, which have to pass after deleting the original jobs, before the mirrored jobs will be deleted from the mirror server. If you enter 0 h, the mirrored jobs are deleted at the same time as the original jobs.<br>Default: 12h |
| 'Hold Locked Jobs [h]' | Number of hours, after which locked jobs will be deleted from the server.<br>If you enter 0 h, the locked jobs are not deleted at all. |
| 'Hold Log Files [d]' | Use this field to specify how many days the ODS log files ('/u/prismapro/diag/') are to be kept.<br>If you enter 0 d, the log files are not deleted at all.<br>The default setting is 2 days. |
| 'Min. Free Diskspace [%]' | Enter the minimum amount of disk space in percent of the planned disk space in MB to be kept free on the ODS server for the '/u/' and '/root/' file system. This value applies to all servers of the Océ PRISMAproduction Server network. If you enter the value '0', the free disk space will not be monitored.<br>In the event that the free space on both file systems falls below the threshold value you have indicated, ODS will not accept any further jobs on the respective server until there is more space again or the lock is released manually.<br>Default and recommendation: 15% |
| 'Threshold value Free Diskspace [%]' | If the available diskspace reaches the value set for the minimal free diskspace (see above), the threshold controls, when jobs will be accepted again by the system.<br>**Example**: Min. free diskspace is 15%, threshold is 3% -> ODS will accept jobs again, if the free diskspace is 18%.<br>Setting a threshold value avoids switching the job acceptance permanently on and off, if the diskspace oscillates around the value set for the min. free diskspace.<br>Default: 3% |
| 'ODS Protocol Level' | You can define a protocol level for the ODS system. For normal operation select level 1 from a range of 1-5. Default value is level 1 (lowest protocol level). |

# 'System Configuration': System and Job Parameter

## Illustration




## 'System Parameter'

| Parameter | Description |
|---|---|
| 'Language' | The language of the Océ PRISMAproduction Server system. The setting you make here applies to all the computers in this Océ PRISMAproduction Server network. The Océ PRISMAproduction Server system language is used if the user language (see *"User Management': 'User"* on page 264) is set to 'System'. Further it is used for internal information and system messages. Default setting is 'English'. |

| Parameter | Description |
|---|---|
| 'Trusted hosts [TCP/IP]' | Computers which are not part of the Océ PRISMAproduction Server network but which need to access a computer in the network have to be registered as trusted hosts. For instance, computers which access a remote Océ PRISMAproduction Server network via the PJM command line or Océ PRISMAproduction Server file server each have to be registered in this way.<br>Trusted hosts do not need to be defined in the server table as Océ PRISMAproduction Server servers in the ODS network.<br>Format: IP addresses for example: 160.111.13.27. Click the 'Add' button to open a dialog which allows you to enter an IP address in the correct format.<br>You can also use a wildcard after the second dot as termination, for example: 160.111.*,<br>160.111.1*,160.111.14.*,160.111.14.2*.<br>This allows an easier access to many computers in a domain. This is especially useful for the Windows Printer Driver.<br>Use the 'Update' button to modify a marked IP address. With 'Remove' the marked address is deleted from the list. |

## 'Job Parameter'

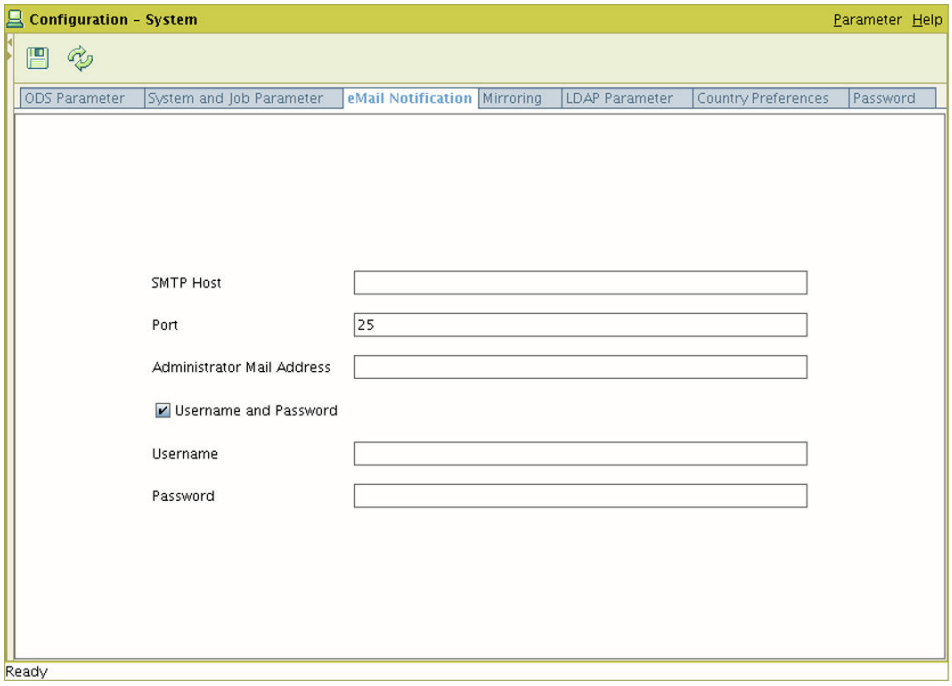
| Parameter | Description |
|---|---|
| 'Operator Intervention' | When you check 'Operator Intervention', jobs that are submitted in the PJM require operator acknowledgment. They are set to 'interrupted' and processing has to be initiated manually.<br>Default: not active |
| 'Run Job on One Host' | When you check this option, the system will attempt to execute the entire job on a single print server. Of course, this is only possible if the services required for the job can all be accessed on the server concerned. For instance, if the job files have to be converted but the converter is installed on a different server, the conversion step will have to be executed on the other server.<br>Default: not active |
| 'Access Each Printer of a Cluster' | When you are using printer clusters, you normally just pick the cluster name for selecting a printer, and the system decides which physical printer will print the job.<br>Default: not active |

# 'System Configuration': eMail Notification

## Introduction

If you create a print job via PJM you can specify an E-mail address, which receives a message, if the job has a defined status. To use this function, you have to make known the access data of the SMTP server to the Océ PRISMAproduction Server system. The required data are provided by the administrator of the SMTP server. (SMTP = Simple Mail Transfer Protocol)

## Illustration




## eMail Settings

| Parameter | Description |
|---|---|
| 'SMTP Host' | IP address or name of the server for outgoing mail. |
| 'Port' | Default: 25 |
| 'Administrator Mail Address' | Mail address of the Océ PRISMAproduction Server administrator. Serves as sender address in the E-mails. |

| Parameter | Description |
|---|---|
| 'Username and Password' | If the SMTP server requires an authentication, you have to activate this option. |
| 'Username' | User name of the SMTP server. |
| 'Password' | Password for the SMTP server. |

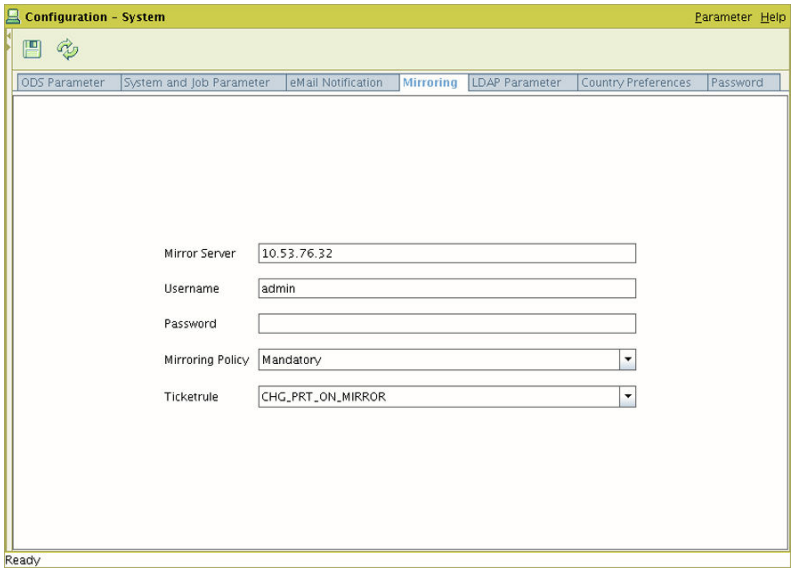
# 'System Configuration': Mirroring

## Introduction

For a detailed description of the mirror concept see chapter "Backup Solutions" -> *'Mirror Print Jobs: Introduction'* on page 625.

In this section you can define the global parameters for mirroring print jobs on another Océ PRISMAproduction Server master server (mirror server). Some of these settings can be overwritten in the PJM.

## Illustration




## Mirror Parameters

| Parameter | Description |
|---|---|
| 'Mirror Server' | Sever name of the Océ PRISMAproduction Server master, which receives the mirrored print jobs. |
| 'Username' | User name under which the mirrored job is generated on the mirror server (future owner of the job, displayed in the joblist). This user must exist on the mirror server. |
| 'Password' | Password for the user above. |

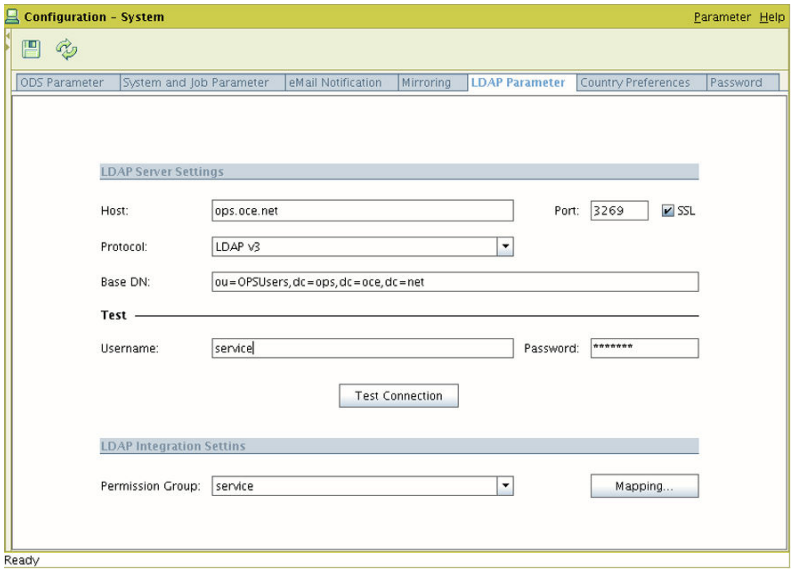
| Parameter | Description |
|---|---|
| 'Mirroring Policy' | 'Mandatory':<br>If this option is selected, the system only creates the job if mirroring was successful. In other words, the job is created on both systems or it is not created at all.<br>'Optional':<br>In this case the system tries to mirror the job, but if this is not successful, the job will be submitted on the original server anyway. You can also set the mirror policy in the PJM (menu 'Job' -> 'Transfer Mode'). The PJM policy always overrides the setting in the 'System Configuration' window. If you set the policy in the PJM to 'Default', the setting in 'Configuration' -> 'System' becomes valid. |
| 'Ticketrule' | Select a Ticket Rule, which has been configured to modify the ticket of the mirrored job so that this job can be submitted on the mirror server. You can set this parameter here and/or in the PJM -> 'Transfer Mode'. The Ticket Rule, which is set in the 'System Configuration', is only applied if the Ticket Rule setting in the PJM is set to "Default". |

# 'System Configuration': LDAP Parameter

## Introduction

On this tab you configure the parameters for the connection to the LDAP server. Additionally you can define the default values for the Océ PRISMAproduction Server specific handling of those LDAP users, who are not registered in the Océ PRISMAproduction Server user management (see *"User Management': Overview'* on page 258).

## Illustration




## LDAP Server Settings

| Parameter | Description |
|---|---|
| 'Host:' | Name or IP address of the LDAP server. |
| 'Port': | Port number, which is used to access the LDAP server. (The LDAP specification recomments port 389 and for the SSL communication port 636.) |
| 'SSL' | Indicates whether the communication via the above configured port should be SSL based or not.<br>Note that an LDAP server supports SSL and non-SSL communication on different ports. If you address an non-SSL port with SSL, an error will occur and the other way round. |

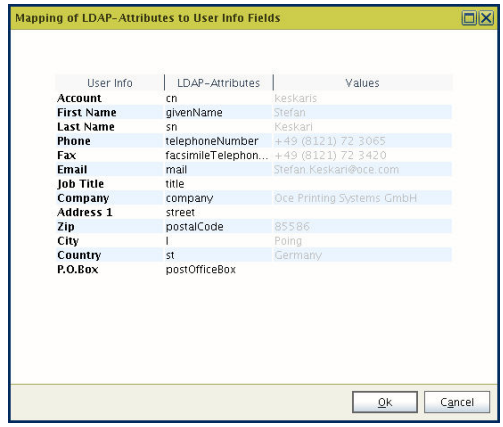
| Parameter | Description |
|---|---|
| 'Protocol:' | The LDAP protocol used. LDAP v2 and LDAP v3 are supported. |
| 'Base DN:' | "Distinguished Name". Defines the point of entry into the LDAP data. The hierarchically structured LDAP data tree is searched from this point on. All sub-nodes of the "Distinguished Name" will be searched to find the user names with their attributes |
| 'Test Connection' | To ensure that the configured LDAP server settings are correct, you can set up a test connection to the LDAP server. If no connection is possible or if the auhtentification fails, the administrator gets significant error messages to correct the settings. On the 'real' log in of a user via the log in dialog, the reason for the failure is not reported for security reasons.<br>To establish a successful connection, a test'Username:' and a test'Password:' are required. |

## LDAP Integration Properties

The following describes the properties, with which the LDAP users, who are not configured in the user management, are integrated into Océ PRISMAproduction Server .

The following default values are valid for these users:

| Parameter | Description |
|---|---|
| 'Permission Group:' | Selection of the permission group |

| Parameter | Description |
|---|---|
| 'Mapping' | Opens an information window which shows the LDAP attributes according to the RFC standard assigned to the Océfields in the 'User Info' application.<br>  <br>**'User Info'**<br>Name of the field as it is used in the Océ PRISMAproduction Serveruser management<br>**'LDAP-Attributes'**<br>Name of the attribute as given by RFC. This name can be modifies to adjust it to the current LDAP scheme.<br>Please note that no values can be assigned to incorrect attribute names, because Océ PRISMAproduction Servermakes no difference if the field exists in LDAP and is empty or if it exists not at all.<br>**'Values'**<br>Displays the values which are found in the LDAP data pool. The values refer to the user who is indicated under Test. |



## Delete LDAP Settings

In order to delete the LDAP settings, simply delete the contents of the 'Host:' field. After saving the configuration, all other LDAP settings are also removed.

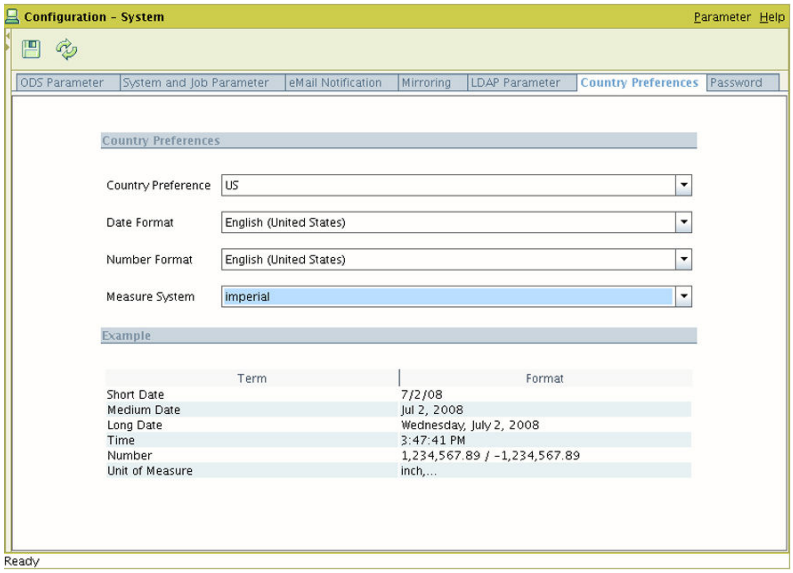
# 'System Configuration': 'Country Preferences'

## Introduction

Here the gobal (systemwide) settings for the country preferences are performed. These settings can be modified for each user in the user administration (see *"User Management': 'User"* on page 264).

*Note:*
The 'Country Preferences' can only be modified by users whose account is based on the 'admin' and 'service' permission groups.

## Illustration




## Stage - description table

| UI-Element | Description |
|---|---|
| 'Country Preference' | ■ '(Default)'<br>depends on the Océ PRISMAproduction Server system language<br>■ 'CA'/'DE'/'GB'/'US'<br>Predefined country settings can be selected or the settings can be modified by selection boxes described below.<br>If the settings in this dialog do not match with 'US', 'DE','CA' or 'GB', 'Mixed' is displayed. |
| 'Date Format'<br>'Number Format'<br>'Measure System' | Here you can select the format for many countries as well as the 'Measure System' (metric or imperial).<br>The examples are adjusted to the values which are currently set.<br>The default settings are dependent on the user language. |

# 'System Configuration': 'Password'

## Introduction

To increase security, certain requirements can be defined for passwords. These requirements refer to the expiration (Password Aging) and to the complexity of passwords.

**'Password Aging'**

If you use the Password Aging parameters, a periodic change of the password can be enforced. The starting point is always the date of the last change of the password. From this point on a number of days can be defined for which the password is valid. After this period of time the password expires.
A period of time can be defined before the password expires in which the user is informed that the password will soon not be valid anymore.
After the password has expired, another period of time can be defined in which the user is still allowed to log on but has to change the password immediately.
Aging parameters can only be set up for the 'Authorization''External' (see *"User Management': 'User"* on page 264). Aging parameters for 'Authorization''Auto' are set under LINUX and for 'Ldap' under LDAP.
Here in 'Configuration' -> 'System' -> 'Password' the aging parameters are set globally and are valid for all 'External' users.
In the 'User Management' it is possible to modify the settings for individual users.

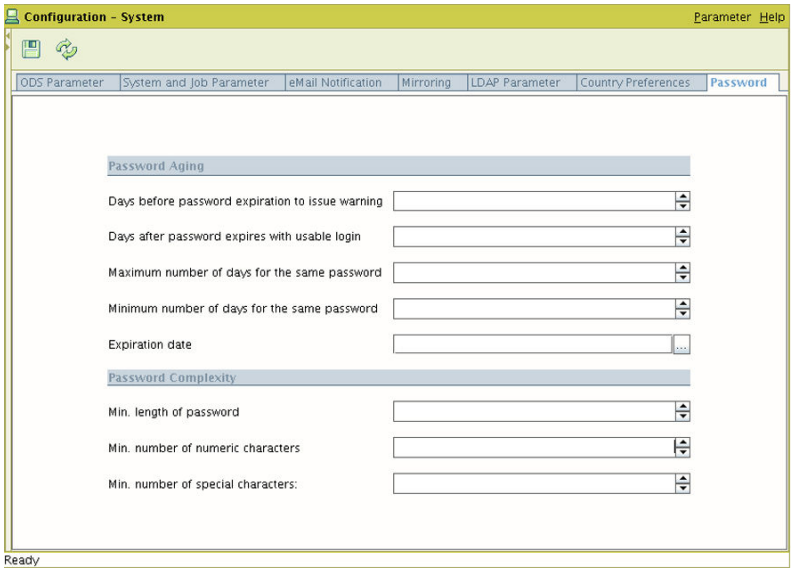
**'Password Complexity'**

Use these parameters to define the required length of a password and the characters of which it must consist.
Complexity parameters are defined globally via 'Configuration' -> 'System' -> 'Password' for all users with 'Authorization''Auto' or 'External'.

**Permissions**

Users of the 'Permission Groups' 'applic' and 'operator' can only access to the 'User Info' application (see *"User Management': 'User Info"* on page 269). This means, these users can only edit their own user data and their own password. The password has to conform to the rules of complexity. It can only be changed if it is changed outside of the minimal period of validity. The aging parameters are visible but cannot be modified.
Users of the 'Permission Groups' 'admin' and 'service' have full permissions to modify the passwords of all users at any time in the 'User' dialog (see *"User Management': 'User"* on page 264). If passwords do not comply with the rules of complexity, a warning is displayed in the 'User Management' which can be ignored. If a password is changed in the login dialog it has always to conform to the rules of complexity.

## Illustration




## 'Password Aging'

Some parameters depend on each other. To avoid contradictive values, the values are adjusted automatically.

| Selection Box | Description |
|---|---|
| 'Days before password expiration to issue warning' | The user will get a warning a certain number of days before the password expires. Select the number of days.<br>The user can decide whether he wants to change the password immediately or firstly continues to work.<br>Default is a blank (no warning will be displayed). |
| 'Days after password expires with usable login' | Select the number of days during which the user has still the possibility to log on. In this period of time the user also has to create a new password to be admitted to the system.<br>Default is a blank (no login is possible after the password has expired). |
| 'Maximum number of days for the same password' | Maximium number of days for which the password is valid. After this period of time the password expires.<br>Default is a blank (the password never expires). |

| Selection Box | Description |
|---|---|
| 'Minimum number of days for the same password' | Minimum number of days a password is valid. During this period of time, the password cannot be changed (protect from an immediate rechange of the password).<br>Default is a blank (the new password can be changed immediately). |
| 'Expiration date' | Date when the password expires in any case. The day indicated here is the first day from which on no login to the system is possible anymore. This is a superior indication which can be used for instance for a limited access of a user.<br>The entry is not used to enforce a periodic change of passwords. The 'Days after password expires with usable login' setting has no effect if the user login has expired after reaching the expiration date.<br>Default is a blank (access never expires). |

## 'Password Complexity'

The higher the complexity of a password is, the more security is provided.
The password should have a reasonable length and should contain as many different characters as possible.

| Selection Box | Description |
|---|---|
| 'Min. length of password' | The longer the password, the greater the security is.<br>Default is a blank (no minimal length is required). |
| 'Min. number of numeric characters' | Minimal number of special characters (', /, ...) a password must contain<br>Default is a blank (no special characters are required). |
| 'Min. number of special characters' | Minimal number of numeric characters a password must contain<br>Default is a blank (no numeric characters are required). |

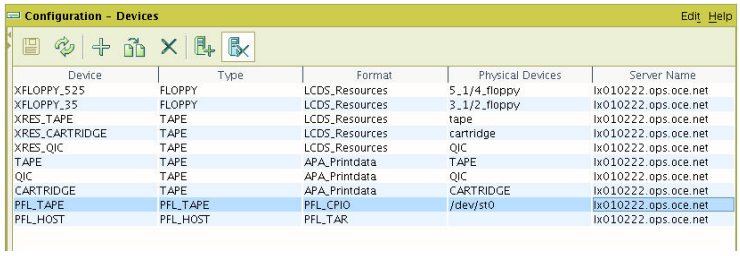
# 'Devices'

## 'Devices' Configuration

### Introduction

The configuration interface provides functions for configuring devices (tape drives, floppy drives, network connections and the like) – which means making them known to Océ PRISMAproduction Server. Once a device has been registered with Océ PRISMAproduction Server, it is shown in the Directory Viewer.

### Illustration




### Columns

| Columns | Description |
|---|---|
| 'Device' | Device namen in the system. |
| 'Type' | Device type, e.g. TAPE, PFL_HOST, PFL_TAPE. |
| 'Format' | Language module dependent data format (resources or print data). |
| 'Physical Devices' | The physical name of the device, as used by the operating system, for example '/dev/rsto-' |
| 'Server Name' | The computer to which the device is connected. Double clicking opens a list of all computer names in the system. |

### Configuring Media for the 'Print File Manager'

When configuring media for the 'Print File Manager' via ’Configuration’ -> 'Devices' you have to use special keywords:

| Columns | Text |
|---|---|
| 'Type' | PFL_HOST or PFL_TAPE (computer or tape device) |
| 'Format' | PFL_TAR or PFL_CPIO |

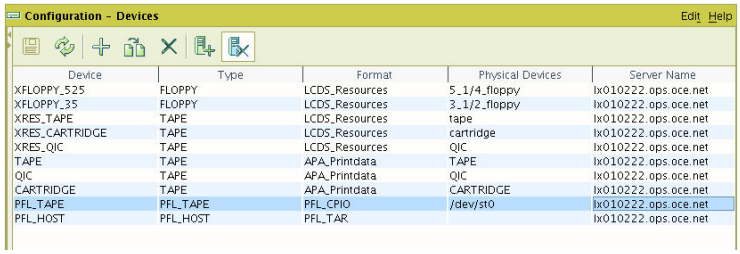
If you select PFL_TAPE, you have to insert the device under 'Physical device' (for example '/dev/sto').

# 'Devices' Configuration (APA / LCDS)

## Introduction

The configuration interface provides functions for configuring devices (tape drives, floppy drives, network connections and the like) – which means making them known to Océ PRISMAproduction Server. Once a device has been registered with Océ PRISMAproduction Server, it is shown in the Directory Viewer.

## Illustration




## Columns

| Columns | Description |
|---|---|
| 'Device' | Device namen in the system. |
| 'Type' | Device type, for example TAPE. |
| 'Format' | Language module dependent data format (resources or print data). |
| 'Physical Devices' | The physical name of the device, as used by the operating system, for example '/dev/rsto-' |
| 'Server Name' | The computer to which the device is connected. Double clicking opens a list of all computer names in the system. |

# 'Master/Slave'

## 'Master/Slave' Configuration

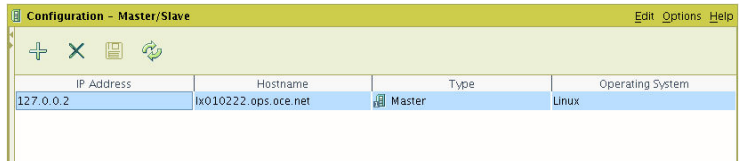
### Introduction

Select 'Configuration' -> 'Master/Slave' to configure the Océ PRISMAproduction Server computers in an Océ PRISMAproduction Server network by entering their IP addresses. All the other details in the Master/Slave table are provided by the system. The entry for the master is also provided by the system.

Before adding a server you have to check the following:

- The IP address of the first network card is the address, which is used by Océ PRISMAproduction Server (check this with '/sbin/ifconfig', entry under etho). This address must be accessible in the Océ PRISMAproduction Server network.
- Job acceptation and job processing must be switched off.
  The 'etc/hosts' file of all servers (Master and Slaves) must contain all servers of the Océ PRISMAproduction Server network. Please take care for the correct syntax:
  **Example**: 160.120.20.111 charly.ops.de charly

### Illustration




### Column Titles

| Columns | Description |
|---|---|
| 'IP Address' | The IP address of the server. If you want to |
| 'Hostname' | The symbolic name of the server |
| 'Type' | The type of computer: master, client or PrintSlave |
| 'Operating System' | The server operating system. |

Menu and tool bar functions see *'General Usage of the Configuration Applications'* on page 256

## Add a Server

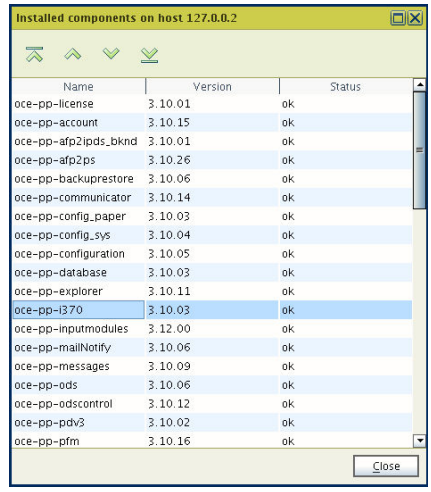
Before adding a server you have to check the following:

- The IP address of the first network card is the address, which is used by Océ PRISMAproduction Server
  (check this with '/etc/sysconfig/network/ifcfg-eth-id-<mac-address>'). This address must be accessible in the Océ PRISMAproduction Server network.

- Job acceptation and job processing must be switched off (see chapter "Servers" in the Océ PRISMAproduction Server User's Guides)
- The 'etc/hosts' file of all servers (Master and Slaves) must contain all servers of the Océ PRISMAproduction Server network. Please take care for the correct syntax: **Example**: '160.120.20.111 charly.ops.de charly'

To add a server click the tool bar icon + or right click on the table. Select 'Insert' in the context menu. The following dialog is displayed:

| UI Element | Description |
|---|---|
| 'IP Address' | IP address of the computer which should be added. |

| UI Element | Description |
|---|---|
| 'Server Type' | **Slave**: Server which is either used as Printserver or as RIP server, see chapter "Servers" in the Océ PRISMAproduction Server User's Guides.<br>**PrintSlave**: Server which is only used to drive printers, see chapter "Servers" in the Océ PRISMAproduction Server User's Guides.<br>  |



## Options Menu

| Menu entry | Description |
|---|---|
| 'Logfiles' | Generate logfiles to control the following processes:<br>■ Activating and deactivating the host,<br>■ adding and removing a host,<br>■ stopping processes. |
| 'Components' | Returns a list displaying version and status of all components (RPMs): |

# Message System

## Message System: Overview

### Introduction

This configuration application allows you to administrate and configure the message server. You can modify the following items:

- Language support
- Deleting messages automatically
- Saving messages automatically to an external file
- Automatic answers to messages to question dialogs
- Actions triggered by certain messages
- Suppression of the view of messages in the messages window

### Message System Tabs

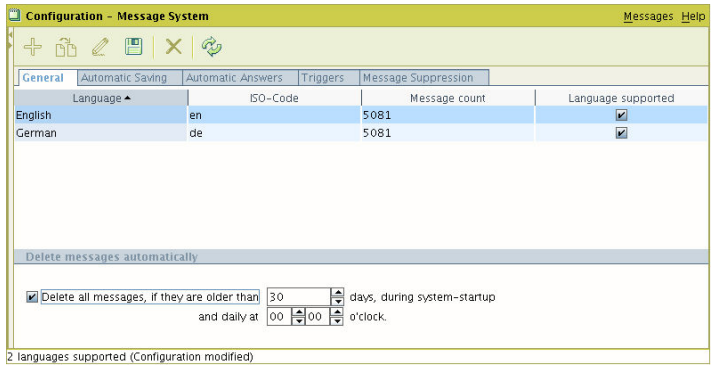
| 'General' | 'Automatic Saving' | 'Automatic Answers' | 'Triggers' | 'Message Suppression' |
|---|---|---|---|---|
| See *'Message System: 'General' Settings'* on page 305 | See *'Message System: 'Automatic Saving''* on page 307 | See *'Message System: 'Automatic Answers''* on page 309 | See *'Message System: 'Triggers' (Active Notification Interface)'* on page 311 | See *'Message System: 'Message Suppression''* on page 312 |

# Message System: 'General' Settings

## Introduction

Allows you to modify automatic deletion and language settings.

## Illustration




## Language Settings

Allows you to select the language to be used for the message system. By default both directories for english and german are enabled. If you are definitely using one language only for the whole Océ PRISMAproduction Server system, you can deselect one language to save resources.

| Column | Description |
|---|---|
| 'Language' | Languages which are available for the display of the messages in the system. |
| 'ISO-Code' | ISO conform abbreviation of the language. |
| 'Message count' | Total number of messages available in this language. |
| 'Language supported' | Mark the checkbox for each language which should be available in the system. |

## Automatic Deletion

If you want to automatically delete older messages, you can indicate the number of days, after which the messages are deleted from the system. After this time, the old messages will be deleted on system start up. Additionally you can also specify a certain daily point

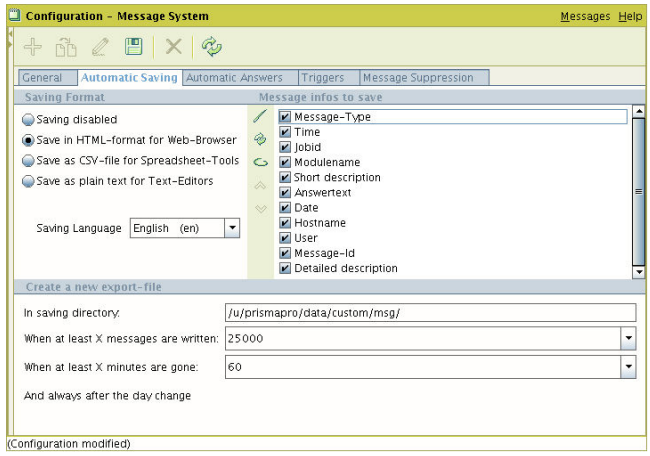
in time, when this deletion should be performed (preferably a time, when you are not busy with the system).

# Message System: 'Automatic Saving'

## Introduction

On this tab you can define how to save messages in an external file. You can save the messages in HTML format (recommended) or as plain text files. HTML will preserve the message colors and you can easily view the messages with any HTML browser. You can also select the language, in which the messages should be saved and the type of message information, which is to be saved. Under 'Create a new export file' you specify the parameters for the files, in which the messages are exported:

## Illustration




## Window Functions

| UI Element | Description |
|---|---|
| 'Saving Format' | Here you can switch off the backup of messages completely or select one of the following formats:<br>- HTML-Format for Web-Browser<br>- CSV-file for Spreadsheet<br>- Plain text<br>Additionally you can select the language in which the messages should be saved. |
| 'Message infos to save' | Here you can decide, which parts of a message should be saved (check or uncheck the boxes). The small tool bar on the right allows you to select all items with one click and to deselect them again. Additionally you can invert your selection. |

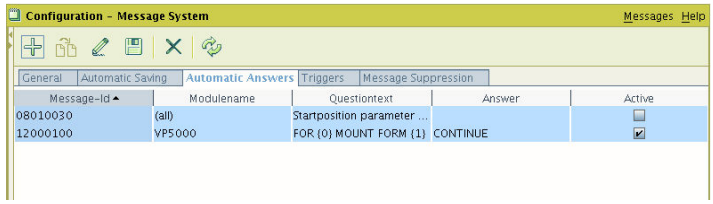
| UI Element | Description |
|---|---|
| 'Create a new export-file' | 'In saving directory:'<br>Insert the path to the directory, where the messages should be stored.<br>'When at least X messages are written:'<br>The maximum number of messages after which a new file is written, normally 10000 or 20000.<br>'When at least X minutes are gone:'<br>Additionally you can set a time value, after which a new message file is written.<br>'And always after the day change'<br>This is a default setting which cannot be changed. |

# Message System: 'Automatic Answers'

## Introduction

Here you can collect messages with questions in a list, which should be answered automatically by the system.
If you click the + button, either, if the list is empty, the first valid message number will be entered in the list or, if there are entries in the list, the marked entry will be copied and added to the list. Now you can edit the following columns.

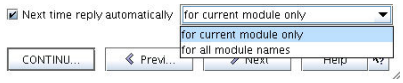
## Illustration




## 'Automatic Answers' Table

| Column | Description |
|---|---|
| 'Message-Id' | Double clicking this entry opens a drop down list, which contains all numbers of messages, which can be answered automatically by the system. |
| 'Modulename' | Opens a drop down list with all modules which generate messages. Select the a module for which the message should be answered automatically or select all modules. |
| 'Questiontext' | Displays the text of the question delivered by the message. |
| 'Answer' | From a drop down list select the answer, the system is to provide automatically. |
| 'Active' | This column allows you to create a master list and to activate those entries only, which are required in a certain situation.<br><br>*Note:*<br>The system generates automatic answers only if this check box is enabled! |

You can also use the question dialog itself to add entries to the list. If a question, which can be answered automatically, pops up, you can check the 'Next time reply automatically' box at the bottom of the dialog. You can also select a defined module or all modules:

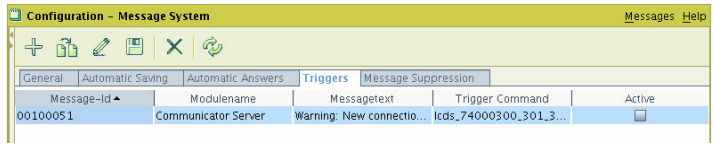


# Message System: 'Triggers' (Active Notification Interface)

## Introduction

Here you can specify programs/scripts, which will be executed, if a certain message is generated by the system. For example you can configure the system to create traces if a certain error occurs. This function is similar to the Active Notification Interface in the Printer Configuration. Consequently the executable programs/scripts have to be located in the '/u/prismapro/bin/ani' directory.

## Illustration




## 'Triggers' Table

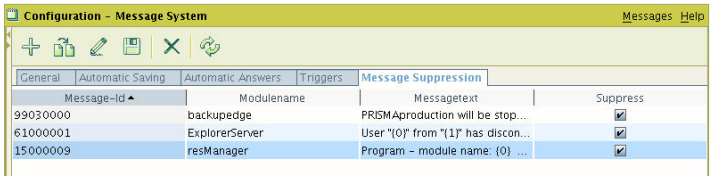
| Column | Description |
|---|---|
| 'Message-Id' | Select the message from the list, which should invoke a specified program/script. |
| 'Modulename' | Opens a drop down list with all modules which generate messages. Select or enter an appropriate module or select all modules.<br>This restricts the trigger to the messages that come from the selected modules. |
| 'Messagetext' | Displays the text of the message. |
| 'Trigger Command' | Opens a list with all available programs/scripts in the '/u/prismapro/bin/ani' directory. Select the program to be executed, if the message is generated. |
| 'Active' | Switch the program execution on or off. |

# Message System: 'Message Suppression'

## Introduction

This dialog allows you to suppress the display of messages in the message window.If you click the 'Add new entry' button: +, either, if the list is empty or no entry is marked, the first valid message number will be entered in the list or, if there are entries in the list and one entry is marked, this entry will be copied and added to the list.

## Illustration




## 'Message Suppression' Table

| Column | Description |
|---|---|
| 'Message-Id' | Double clicking this entry opens a drop down list, which contains all numbers of messages, which can be answered automatically by the system. |
| 'Modulename' | Opens a drop down list with all modules which generate messages. Select the a module for which the message should be answered automatically or select all modules. |
| 'Messagetext' | Displays the text of the message to be suppressed. |
| 'Suppress' | This column allows you to create a master list and to activate those entries only, which are required in a certain situation.<br><br>*Note:*<br>The system suppresses the display of messages only if this check box is enabled! |

You can also add entries to the list, if you right click a message in the **Message window** and select 'Suppress Message ...' from the context menu. A dialog appears and asks you to choose one or all modules for which the messages should be suppressed.

# 'Licenses'

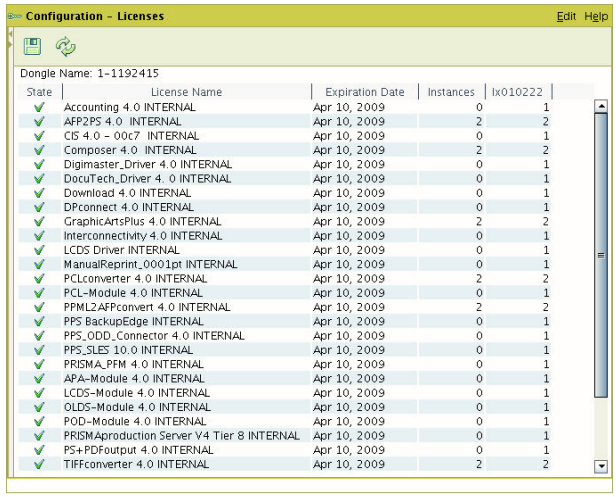
## 'Licenses'

### Introduction

Océ PRISMAproduction Server V4 licenses are stored on a CodeMeter dongle (CmStick), a small USB device which must be plugged in at the Océ PRISMAproduction Server master server. Before activation of the Océ PRISMAproduction Server modules, the licenses of the CmStick must be configured with the 'Licenses' application under 'Configuration'.

*Note:*
Only the users **root**, **service** and **admin** can save configuration changes.

### Illustration


Configuration - Licenses
Edit Help
Dongle Name: 1-1192415
State
License Name
Expiration Date
Instances
lx010222
Accounting 4.0 INTERNAL Apr 10, 2009 0 1
AFP2PS 4.0 INTERNAL Apr 10, 2009 2 2
CIS 4.0 - 00c7 INTERNAL Apr 10, 2009 0 1
Composer 4.0 INTERNAL Apr 10, 2009 2 2
Digimaster_Driver 4.0 INTERNAL Apr 10, 2009 0 1
DocuTech_Driver 4. 0 INTERNAL Apr 10, 2009 0 1
Download 4.0 INTERNAL Apr 10, 2009 0 1
DPconnect 4.0 INTERNAL Apr 10, 2009 0 1
GraphicArtsPlus 4.0 INTERNAL Apr 10, 2009 2 2
Interconnectivity 4.0 INTERNAL Apr 10, 2009 0 1
LCDS Driver INTERNAL Apr 10, 2009 0 1
ManualReprint_0001pt INTERNAL Apr 10, 2009 0 1
PCLconverter 4.0 INTERNAL Apr 10, 2009 2 2
PCL-Module 4.0 INTERNAL Apr 10, 2009 0 1
PPML2AFPconvert 4.0 INTERNAL Apr 10, 2009 2 2
PPS BackupEdge INTERNAL Apr 10, 2009 0 1
PPS_ODD_Connector 4.0 INTERNAL Apr 10, 2009 0 1
PPS_SLES 10.0 INTERNAL Apr 10, 2009 0 1
PRISMA_PFM 4.0 INTERNAL Apr 10, 2009 0 1
APA-Module 4.0 INTERNAL Apr 10, 2009 0 1
LCDS-Module 4.0 INTERNAL Apr 10, 2009 0 1
OLDS-Module 4.0 INTERNAL Apr 10, 2009 0 1
POD-Module 4.0 INTERNAL Apr 10, 2009 0 1
PRISMAproduction Server V4 Tier 8 INTERNAL Apr 10, 2009 0 1
PS+PDFoutput 4.0 INTERNAL Apr 10, 2009 0 1
TIFFconverter 4.0 INTERNAL Apr 10, 2009 2 2

### License Manager Window

The license configuration window displays a table of all available CmStick licenses including their corresponding properties. Further columns for each Océ PRISMAproduction Server server are added for license assignment.
Currently three possible actions can be performed:

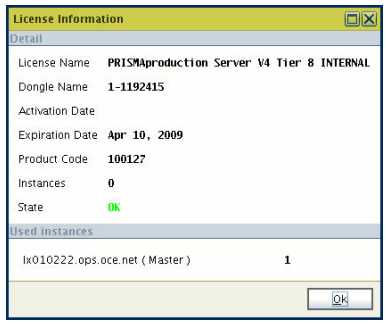
| Tool Bar / Menu | Description |
|---|---|
| 'Edit' -> 'Apply' | All license modifications will be stored in the database and the corresponding Océ PRISMAproduction Server modules will be activated. |
| 'Edit' -> 'Discard' | Discards license changes and displays the currently stored configuration of the database. |
| 'Edit' -> 'Reconfiguration' | Deletes existing license assignment of the database and initializes the database by rereading the licenses from the CmStick. Result is, that no license is assigned to an Océ PRISMAproduction Server server. |

The Licenses table provides the following columns:

| Column Title | Description |
|---|---|
| 'State' | License is ok. |
| 'License Name' | Consists of the product and the version. |
| 'Activation Date' | Displays the date of the activation of the “Emergency” dongle. |
| 'Expiration Date' | Displays the expiration date of the licenses – no entry means, the license has no expiration date. |
| 'Available Instances' | Displays the number of free licenses, which are not yet assigned to servers. The count is deminished by the number of instances you assign to the servers. It the count is 'o' all instances are assigned the server(s). |
| 'Product Code' | Describes the internal product number. |
| Server Name | Shows the number of activated licenses for this server. For each new server which is added to the Océ PRISMAproduction Server cluster an additional column will be inserted with the server’s hostname as title. |

## License Information

Double click a license entry to open a license information window:




Apart from the information already given in the license table the following is displayed in this window:

| UI Entry | Description |
|---|---|
| 'Activation Date' | Displays the date of the activation of the “Emergency” dongle. |
| 'Product Code' | Describes the internal product number. |

## Assignment of Licenses with the 'Licenses' Application

License assignment to an Océ PRISMAproduction Server server can be done by double-clicking the corresponding cell of the server column (last column of the table) and license row. In a drop down list, the number of assignable licenses will be displayed - mostly you can change the number from “0” to “1”.

### Meaning of the Numbers

| | |
|---|---|
| 0 | Means that this license is not assigned to the server. |
| 1 | Means that this license is assigned to the server. |
| > 1 | means the amount of instances which are assigned to the server |

# 'Accounting'

## 'Accounting' Administration: Overview

### Introduction

The account server is a daemon-process running once in an Océ PRISMAproduction Server Explorer-server network. It collects the accounting data sent by the different modules and writes the accounting entries into a database and also into the legacy files. It can also delete accounting entries (and files) after a configurable time (number of days).

All accounting information based on legacy files is kept in the directory '/u/prismapro/account/'. This directory name cannot be changed.

### Accounting Configuration Window

The Océ PRISMAproduction Server Explorer offers an accounting administration window in the Configuration part of the Explorer. This window consists of three tabs:

| 'General' | 'Database Permissions' | 'Legacy-Files' |
|---|---|---|
| General configuration settings<br>See *"'Accounting' Administration: General Settings'* on page 317. | PostgreSQL database access<br>See *"'Accounting' Administration: 'Database Permissions"* on page 320. | Legacy Files administration<br>See *"'Accounting' Administration: 'Legacy-Files"* on page 321. |

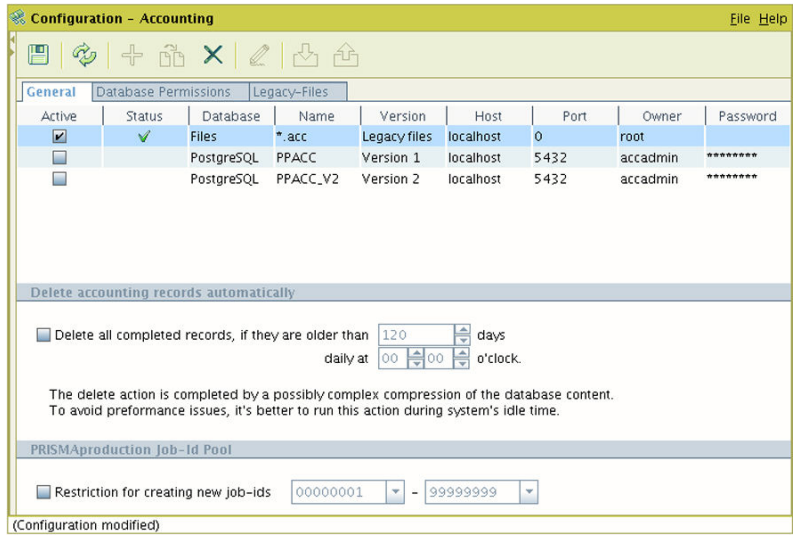
# 'Accounting' Administration: General Settings

## Introduction

This tab can be used to configure major accounting behavior:

- Enable/Disable storing legacy accounting entries in files.
- Enable/Disable storing accounting in the accounting database.
- Configure connection attributes of the accounting database (if an external database should be used to store data).
- Export database accounting and import the exported records into another database for migration of database structures.

## Illustration




## Storage of Accounting Records

*Note:*
To use the accounting database, a license (Accounting 4.0) is required.

| Column | Description |
|---|---|
| 'Active' | Activates/Deactivates the storage of the accounting records either as legacy files or in a 'PostgreSQL' database.<br>For 'PostgreSQL' you can select the normal version 1 or the enhanced version 2 which also stores for example color information.<br><br>*Note:*<br>Two active databases may have an inpact on the system performance. |
| 'Status' | Reflects the status of the database: 'Ok', 'closed' or 'connected'. |
| 'Database' | Type of the database.<br>Default: Files and 'PostgreSQL' |
| 'Name' | Name of the database (can be modified).<br>Default: PPACC and PPACC_V2 |
| 'Version' | Version of the 'PostgreSQL'.<br>Default: 'Version 1' and 'Version 2'. |
| 'Host' | Hostname, where the database runs on. |
| 'Port' | Port number to access the database server (can be modified).<br>Default: 5433 |
| 'Owner' | User name, which has permission to access the database (accadmin is the preconfigured internal default user, which cannot be modified.<br>Default: accadmin |
| 'Password' | User-Passwords |

## Export / Import of Database Accounting

The export and import feature is the way to migrate accounting database content from an older database version to a newer one. So export should be done before installation of a new Océ PRISMAproduction Server version containing a new database structure version.

*Note:*
Before export it is recommended to condense the database to the necessary records by executing in database maintenance the action "Clean up Accounting-database (vacuum)". This will afterwards reduce time to parse the imported records into the database.

To export the database content use the export button (). You will be asked for a file name to store the original accounting records that were sent to the accounting server together with their time stamp.

To import accounting records with time stamp use the import button (). The import is done like normal sending accounting records to the accounting server, so parsing the records may take a longer while. This task is to be done once after installation and activation of a new database structure.

## 'Delete accounting records automatically'

Here you can define the number of days after which the old and completed accounting entries will be deleted automatically at system startup. Additionally you define here a daily deletion time.
**Files**: old files are simply deleted
**Database**: entries, which are referenced by entries from other tables are not deleted. "Unfinished" entries (TIME_OUT is still NULL) are not deleted.

*Note:*
The "delete" button in the tool bar (✕) can be used to call the cleanup procedure immediately.

## 'PRISMAproduction Job-Id Pool'

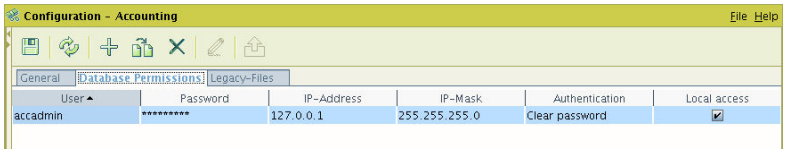
Restriction setting for creating new Océ PRISMAproduction Server job ids. This feature can be used to exchange jobs between primary servers without job id conflicts, as long as the job id range is limited to the range 1-99999999.

# 'Accounting' Administration: 'Database Permissions'

## Introduction

The configuration of the PostgreSQL database only allows access to internal user "accadmin". This user is the owner of the database and he has full access to it.
On this tab, additional users can be created with read-only access to the database in order to allow accounting analyzing tools to read information from the database.

## Illustration




## Permissions Table

The table on this tab contains adjustments required in the postgres configuration file: '/u/prismapro/data/postgres/database/pg_hba.conf'

All entries in this file, which are related to the accounting database, are always automatically adjusted with the configuration settings in this table.
More information is available in the postgres administration documents.

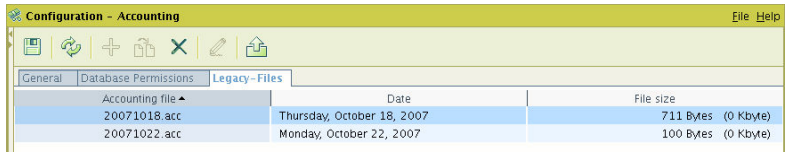
*Note:*
These users get only a "read" access to the database!
If a user with the same name is defined for multiple ip-adresses, the same password is synchronized for that user automatically for all rows.
Write access to the database is possible only with the command "ppacc -a".

# 'Accounting' Administration: 'Legacy-Files'

## Introduction

The 'Legacy-Files' tab can be used to manage the old accounting files, which are created in the '/u/prismapro/account/ 'directory on the master server.

## Illustration




The following actions are possible with the legacy accounting files:

- Delete (✕) stored accounting legacy files (deletion is restricted to the users "admin" and "service").
- Export (🖻) **all selected** legacy accounting files into a single output file. This output file can be stored on windows clients running the Launcher interface too.

# 'Consumables'

## 'Consumables' Configuration

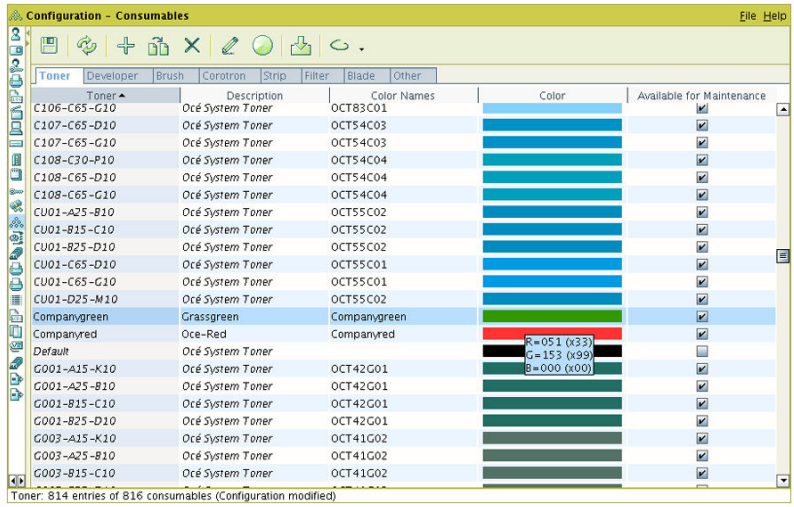
### Introduction

The 'Consumables' configuration application is used to pre-configure the consumables with unique names and a description. After you have saved the entries, the names of the consumables can be selected in the 'Printer Maintenance' dialog in the 'Printer Pool' window (see chapter "Printer Pool" -> "Maintenance Report" in the Océ PRISMAproduction Server User's Guides).

The 'Consumables' are organized in different tables (Toner, Developer, Brush, Corotron, Strip, Filter, Blade, 'Other') which are accessible via tabs within the application. Some 'Consumables' are already preconfigured in these tables.

The 'Toner' table also provides a complete list of all color toners which are available from Océ.

## Illustration




## Toner Table

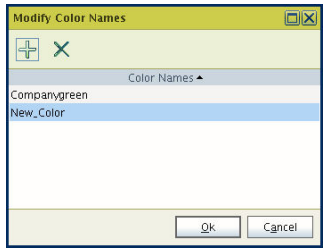
Use this table to select the toners you use on your Océ PRISMAproduction Server system. You can also use this table to define your own toner colors or to add user defined color names to Océ System Toners:

First you have to select a toner entry in the 'Toner' table. The 'Color' column shows a sample view of the toner color.

Now you can copy the entry with the "Copy" button ( ) and modify the color name for the toner.

To define a new toner color, click the "Add" button ( ) or select 'Add New Entry' from the context menu. A new line is inserted in the table. All columns of the toner table (see description below) are editable for this new entry.

For the already existing 'Océ System Toners' you can add a user defined color name to the existing 'Color Name' via a dialog box:




To open this box, you have to mark the entry which should be modified an then click the modify button in the tool bar ( ) or select 'Color Names...' from the context menu

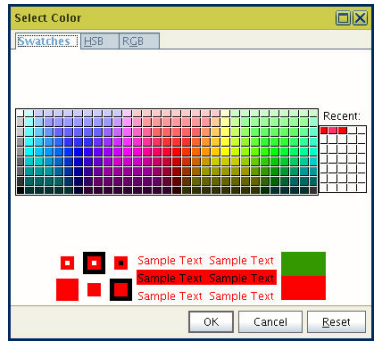
(right mouse button) or from the 'File' menu. The dialog also opens if you double click the column 'Color Name' of the selected entry.
For 'Océ System Toners' you are not allowed to change the RGB values or the description. If you still want to modify the color value, you first have to copy the respective entry ( ).

### Assign Toner Colors to Printer

You can use the 'Toner Station' tab in the 'Printer Configuration' to assign Océ Toners and/or user defined toners to printers (see *'Printer Configuration: Toner Stations'* on page 366).

### Toner Table Columns

| Column | Description |
|---|---|
| 'Toner' | Internal toner number. |
| 'Description' | The description 'Océ System Toner' cannot be edited.<br>If you create a new toner, you can edit a description here. |
| 'Color Names' | The predefined color name of an 'Océ System Toner' connot be modified, but you can add other names if you wish (see above).<br>For user defined colors the entire field is editable. |

| Column | Description |
|---|---|
| 'Color' | This column shows a sample view of the selected toner color. Red-Green-Blue values are shown as tool tip. The setting is used by the Professional Document Composer to display the color.<br>With user defined toners you can click the 'Select Color' button (🔵) to open a dialog, which helps you to enter the correct values for your color. Clicking 'OK' transfers the values to the column. The same dialog opens if you select 'Color Selection ...' from the contex menu or if you double click on the color.<br>  <br>If you try to edit the color of an 'Océ System Toner' an error message is displayed which informs you that you are not allowed to do so. |
| 'Available for Maintenance' | Mark the check box if the entry should be available in the 'Printer Pool''Printer Maintenance' dialog.<br>See chapter "Printer Pool" -> "Maintenance Report" in the Océ PRISMAproduction Server User's Guides. |

*Note:*
For a complete Workflow for the definition of colors in a print job see *'Workflow 'Color Selection"* on page 578.

## Consumables Tables

You can define your consumables in these tables. For each printer these consumables can be selected in the 'Printer Pool''Printer Maintenance' dialog.
Additionally you find in this table predefined entries for all available Océ toners with their name and description. These entries can only be selected but cannot be modified.

| Column | Description |
|---|---|
| Developer, Brush, Corotron, Strip, Filter, Blade, 'Other' | Name of the consumable.<br>After clicking the 'Add' button (+), a new entry will be added to the table. The first column header contains the consumable name. |
| 'Description' | Add an additional description here. |
| 'Available for Maintenance' | If you check this box, the operator is able to select this consumable in the 'Printer Maintenance' dialog in the 'Printer Pool' application to report its replacement or the refilling to the accounting. If the box is deselected, the 'Consumable name' field in this window is switched into the editable mode, which allows the operator to enter consumable name for the selected type by himself. |

# 'Backup/Restore'

## 'Backup/Restore': Basic Concept

### Introduction

With the 'Configuration' -> 'Backup/Restore' function you can save the configuration of the system and restore it later. It can be useful to generate a backup of the current configuration before an update installation and to restore it after the installation. This function is available for users 'service' and 'admin' only. A message confirms the end of a successful saving or restoring procedure. In case the saving or restoring procedure was not successful, enhanced diagnostic information on the failure is given. This helps the user to efficiently analyze the cause of the failure.

All Océ PRISMAproduction Server servers of a cluster have to be up and running in order to save or restore the Océ PRISMAproduction Server configuration. To restore a previous saved configuration the system configuration has to be identical. This means: same number of slave systems, same IP addresses.
If the current system configuration differs from the backup configuration, the restore feature cannot be executed. This is illustrated in the list of available backups by a grayed-out backup icon.

*Note:*
Every time a restore of the Océ PRISMAproduction Server configuration was performed, a 'Reset Océ PRISMAproduction Server ' is necessary to initialize Océ PRISMAproduction Server with the restored configuration. This reset is automatically done on all servers. A status window is opened to see the progress of the reset. The 'Explorer' will be closed and reconnected automatically.

Details of the backup can be viewed using the backup viewer. To load a backup into the viewer, select the backup from the list of available backups and choose the option 'View'. After a successful saving procedure, the new created backup will automatically be loaded into the backup viewer.

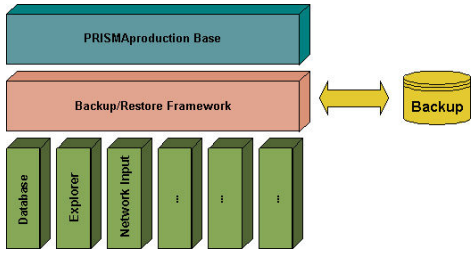
*Note:*
It is not possible to cancel a saving or restoring procedure. The user must wait until the saving or restoring procedure finishes.

*Note:*
Session files (contain stored sessions, suffix.psn) and are not part of the Backup/Restore component. They have to be saved manually.

## Definition

The 'Backup/Restore' component of Océ PRISMAproduction Server is in fact a framework enabling all other Océ PRISMAproduction Server components to backup or restore their configuration. The figure below illustrates this concept. As can be seen in this figure, the 'Backup/Restore' framework delegates the backup/restore action to so-called plug-ins like the Database component, the 'Explorer' component, the Ticket Rules component, etc. The storage of the data which each component is backing up or is restoring, is managed by the 'Backup/Restore' framework.

## Illustration




## Backup Data

As mentioned before, the 'Backup/Restore' framework delegates the backup or restore action to each plugged-in component. This means that each component is responsible for backing up and restoring it's own configuration data. Even more, each component is also responsible to support backwards compatibility between it's backup data. Therefore it is not possible to modify the data (add or remove files/directories) which is being backed up or restored.

## Backup Phases

The 'Backup/Restore' framework sends out several so-called triggers to each plugged-in component. This gives the particular component the possibility to react accordingly. Below a summary is given of all triggers which are executed when a configuration backup is being requested.

- Cancel (Backup Initialization Phase)
  Notifies a plugged-in component that a configuration backup will be started. The component must stop its processes, which influence the configuration backup process, immediately. For example, the ODS will cancel any running job. The canceled ODS jobs must be reactivated again by the user after the backup has finished.
- Preupdate (Backup Phase)

Notifies a plugged-in component that it can start making a backup of its configuration data.

- Uncancel (Backup Finalizing Phase)
  Notifies a plugged-in component that the backup has been finished. The component can now start to operate normally again.

*Note:*
If one or more plugged-in components fail in backing up their configuration data, a diagnostic dialog is displayed after the backup has finished in order to analyze the cause of the failure. In this case NO backup will be created! (an incomplete backup makes no sense...)

## Restore Phases

Just like the backup action, a restore action also causes certain triggers to be executed on all plugged-in components. Below a summary is given of all triggers that are executed when a restore is being requested.

- Cancel (Restore Initialization Phase)
  Notifies a plugged-in component that a configuration restore will be started. The component must stop its processes, that will influence the restore process, immediately. For example, the ODS will cancel any running job. The canceled ODS jobs must be reactivated again by the user after the restore has finished.
- Postupdate (Restore Phase)
  Notifies a plugged-in component that it can start restoring its configuration data which is part of the selected backup.
- Uncancel (Restore Finalizing Phase)
  Notifies a plugged-in component that the configuration restore has been finished. The component can now start to operate normally again.

*Note:*
If one or more plugged-in components fail in restoring their configuration data, a diagnostic dialog is displayed after the restore has finished in order to analyze the cause of the failure. In this case the failed component(s) can contain incomplete or inconsistent configuration data. It is up to the user to configure the failed components by hand or to restore another configuration backup.

For detailed information on how to work with the application see *"'Backup/Restore': Window"* on page 330

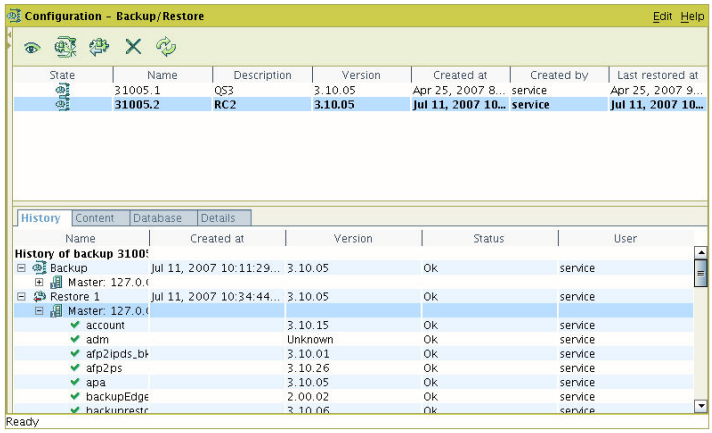
# 'Backup/Restore': Window

## Introduction

The 'Backup/Restore' window consists of two parts:

- a **Backup Selection Table**, which gives an overview of all configuration backups. An icon indicates, if the backups can be restored on the system or not.
- a **Backup Viewer**. Backups can be viewed by loading them in the selection table.

## Illustration




## Tool Bar / Menu Functions

You can load, create, restore, refresh or delete backups using either the **Edit** menu, the toolbar icons or the pop up menu if you right-click on a backup entry.

| Icon | Description |
|---|---|
| 'View the selected backup.' | Before the details of a configuration backup can be shown, it is necessary to load the configuration backup.<br>The loading process takes a little while and cannot be canceled. A warning dialog will be displayed when the user tries to cancel the load process. During the loading process a progress dialog is displayed indicating the status of the loading process.<br>To load a configuration backup, you have to select it in the backup selection table and to start the load action in the **Edit** menu, the pop up menu, the icon bar or by double clicking on the table selection. The backup selection table shows for each configuration backup the information described under "Backup selection table columns" in the next table.<br>When a configuration backup is loaded, the lower part of the 'Backup/Restore' GUI will show a tabbed pane with the views mentioned above. In one of the following tables the several views of a configuration backup will be described in detail. |
| 'Start a new back-up.'<br>(for admin and service users only) | Starts a new configuration backup. After a confirmation dialog, you will be asked to provide a short description of the backup. This description cannot be empty.<br>When all necessary information is provided, the configuration backup creation process will begin. A progress dialog is shown during the backup process, indicating the status of the process. The configuration backup process cannot be canceled. A warning dialog will be displayed when the user tries to cancel the backup process.<br>Should a backup fail, a diagnostic dialog is shown.This diagnostic dialog provides the user a way to analyze the cause of the backup creation failure. |

| Icon | Description |
|---|---|
| 'Restore the selected backup.' | Restores a selected configuration backup. A system backup can only be restored if the following conditions are satisfied. The condition check is performed in the order as described in the list:<br>■ The number of hosts in the configuration backup must match the number of hosts in the current system.<br>■ The hosts IP addresses of the configuration backup must match those of the current system, and the other way around.<br>■ The master IP address of both, the configuration backup and the current system must match.<br>■ The configuration backup must be a valid Océ PRISMAproduction Server V3.xx or higher configuration backup. See<br><br>The type of a slave in the backup (whether it is a standard slave or a print slave) is also checked. The user must take care of restoring the backup only in a configuration with matching slave types.<br>If one of the conditions described here are not satisfied, the configuration backup cannot be restored. The restore functionality will be disabled in this case (the backup icon will be gray).<br>In case not all components could be restored, a diagnostic dialog is shown. This diagnostic dialog provides the user a way to analyze the cause of the restore problem.<br>**Note**: Except for a severe Océ PRISMAproduction Server core system error (for example that the database server is not functioning), a configuration restore always succeeds. It is up to the user to accept the system restore or not in case not all components could be restored.<br>When the restore process has finished the the system will be reset automatically. A reset is alwas necessary after a backup has been restored. The 'Explorer' will be closed and reconnected automatically. While exiting the 'Explorer' all messages regarding the loss of connection can be ignored.<br>It's recommended to check if (maybe unintentionally) functions, which have an impact on the whole Océ PRISMAproduction Server system have been activated by the restore, for example 'eMail Notification', 'Job Notification', 'Printer Notification', ... |

| Icon | Description |
|---|---|
| 'Delete'  | To delete a configuration backup, simply select a configuration backup from the backup selection table and click on the delete button. After confirming a dialog, the configuration backup will be deleted.<br><br>*Note:*<br>There is no way to undo a delete! |
| 'Refresh the back-up selection table' | This functionality simply rereads the available backups from the system. Note that any loaded configuration backup (displayed in the backup views area) must be loaded again after the refresh has finished. As described under "Restoring a backup", the state of a configuration backup is depending on the current system configuration. Therefore the backup selection table needs to be updated whenever the system configuration changes (for example a slave is being added to or removed from the system). In this case the user is being informed about the refresh which will be performed. |

## Backup Selection Table Columns

| Column | Description |
|---|---|
| 'State' | Indicates by an icon, if the configuration backup can be restored on the current system or not:<br> = successful backup, which can be restored<br> = backup with problems.<br> = incompatible backup.<br> = successful restore<br> = restore with problems<br>See "Restoring a Backup" for more details about the conditions for restoring. In case the configuration backup cannot be restored on the current system, a tooltip text will provide the user with possible causes. |
| 'Name' | The name is created automatically when you start the backup. It consists of the Océ PRISMAproduction Server version and a serial number after the dot. |
| 'Description' | Short description of this backup version. You create this description on the start of a new backup. |

| Column | Description |
|---|---|
| 'Version' | Version number of the Océ PRISMAproduction Server release from which the backup has been created. |
| 'Created at' | Date and time of backup creation. |
| 'Created by' | User who created the backup. |
| 'Last restored at' | Last restored configuration backup |

## Backup Viewer Tabs

| Tab | Description |
|---|---|
| 'History' | Shows a history of the backup and its restores which you have selected in the table above. This window also informs you, if the components of a backup have been saved or restored successfully. Each component is marked with an icon indicating its status. If there is a status message associated with the component, you can display the message by double-clicking or right-clicking the item. |
| 'Content' | The content view of a system backup shows a selected set of the most important files which are included in the backup. For each file a short description is given in order to illustrate the meaning of the file. The file-icon illustrates if the file can be viewed or not. The viewing is done using a simple text viewer, therefore some files cannot be viewed. |
| 'Database' | Shows the database tables which are contained in the selected backup. |
| 'Details' | This view provides a 1 to 1 overview on the contents of the backup archive. This tab is only available for users of the type admin and service. Some files can be viewed in ASCII text mode. |

## Backup/Restore diagnostics

In case a backup or restore should fail, a diagnostics dialog will be displayed. This diagnostics dialog offers the possibility to analyze the cause of the failure.

# 'Backup/Restore': Convert old Backups

## Introduction

System backups of an Océ PRISMAproduction Server V3.00.07 system first need to be converted into Océ PRISMAproduction Server V3.02.20 backups. In order to do so, execute the script '/u/prismapro/bin/convertBackups' from the command line immediately after the installation of Version 3.02.20. The script checks the system for old system backups and converts them accordingly.
The Océ PRISMAproduction Server Explorer 'Backup/Restore' application reports the 3.00 Backups as "not restorable". After having saved these converted backups they can be used in Océ PRISMAproduction Server V4.00 without further conversion.

## Conversion Process

The convertBackups script performs 2 functions:

- **Syntax**: 'ConvertBackups -check'
  Checks all backups found on the system (for example the contents of path '/u/.prismapro.bak'). A list is displayed where the state of each backup is specified:
  'up to date' or
  'damaged' or
  'not convertible' or
  'convertible'.
  Of interest are the convertible backups. Damaged backups should be deleted manually by the 'Backup/Restore' application. Non convertible are some early 3.02 Backups which haven't been stored with double byte code encoding yet.
- **Syntax**: 'ConvertBackups [-noreset] '
  Converts all backups stated as convertible to 3.xx. If you rerun the check after the conversion these backups will be displayed as up to date.

*Note:*
It's very important that Océ PRISMAproduction Server is reset after the conversion. The '-noreset' parameter is supported for internal use only. There is no reason of preventing the automatic reset in the customer environment.

For security reasons the backup directory '/u/.prismapro.bak' should be saved before running the conversion. It's recommended to pack it by: 'tar -cvf backups.tar /u/.prismapro.bak' and copy the file into a different file system (not /u). In case of an emergency the backup directory could be restored by: 'tar -xvf backups.tar'.
To use the backups of the Océ PRISMAproduction Server V3.02.20 in Océ PRISMAproduction Server V4.00 or higher save the backups in a tar archive as described above and restore the archive on the new system.

After all the backups of interest have been converted the saved tar file can be deleted.

# 'Library paths'

## 'Library path configuration'

### Introduction

Select 'Configuration' -> 'Library paths' to configure the physical paths of default libraries.

*Note:*
For the PJM type libraries $HEADER, $TARGET and $OUTPUT you can also enter a new path at the bottom of the window.

When selecting files in the **PJM** 'List of Files & Workflow Definition' section you can choose the files from these libraries.

### Language Modules

Depending on the language module you can select files from different libraries:

| Module | Description |
|---|---|
| APA | Select files from the different input devices (CARTRIDGE, QIC, TAPE) which are collected under the $DEVICE library. Select original files in their native format from $TARGET. |
| LCDS | For LCDS resources select input devices presented under $DEVICE (XFLOPPY_35, XRES_CARTRIDGE, XRES_TAPE). For LCDS print data you can select cartridge, channel (additionally channel1 to channel4) or tape under the $XDATA_DEVICE library. You can also select JSLs and resources directly from the jsl and $XRESOURCE library. |
| POD | Select original files in their native format from $TARGET. $OUTPUT saves files in the TIFF, PS and PDF format which have been reconverted from IOCA.<br>In $PFL you find the archives, which contain the final print jobs and print files.<br>Under $PRPRINTS you can select archives with print jobs and print files, which are not yet finished. |

## Library paths Window

| Column | Description |
|---|---|
| 'Name' | The logical name of the library (also virtual paths). |
| 'Path' | The physical path of the file. |
| 'Type' | Indicate whether the library belongs to the Composer, Printer, PJM or web client. The type INTERNAL means that the library is not visible as node in the 'Explorer' tree. |
| 'Description' | A more detailed description of the library. |
| 'Servers' | The servers on which the libraries are located. If you use data mirroring, the same library can be located on several servers. $OUTPUT and $TARGET can only be on the master. $HEADER can be located on any print server. |
| 'New path' | To change the physical path (only possible for $HEADER, $TARGET and $OUTPUT), enter the new path here. The path is created if it does not yet exist. The new path must be empty. |
| 'Move data' | You must check this option to move the existing library to a new path. Otherwise a new library is created in the new path – the new library will be used for all future processing and the old one will remain at its original location.<br><br>*Note:*<br>The library can only be moved to an empty path. |

'Library paths'**File menu** and **toolbar** see: *'General Usage of the Configuration Applications'* on page 256

# 'Printers'

## Printer Configuration: Overview

### Introduction

The Printer Configuration Manager is used to configure all printers in the Océ PRISMAproduction Server network. The application consists of the 'Printer' menu and a tool bar, which give you access to identical functions. The window is divided into two main parts: The upper half displays a table with all configured printers (**Printer Table**). The lower half gives you access to up to nine different tabs on which you perform all steps to fully configure a printer (**Printer Configuration Area**).

*Note:*
All buttons which are grayed out (dimmed) and are not mouse or key sensitive cannot be activated, either because the user has no right of access or because the function concerned cannot be executed at this point.

***Attention:***
Only the users **root**, **service** and **admin** can save configuration changes.

### The 'Printer' Menu and Toolbar

All functions in this menu are also accessible via the tool bar icons of the Printer Configuration Manager.

| Menu entry | Description |
|---|---|
| 'Start print daemon on Host' | Enables the Océ PRISMAproduction Server spool in case it has been disabled before. The small arrow button allows you to select any computer in the network, on which the spool should be enabled. |
| 'Stop print daemon on Host' | Disables the Océ PRISMAproduction Server spool. The small arrow button allows you to select any computer in the network, on which the spool should be disabled. |
| 'Save' | Saves the configuration. If a printer was modified, which is currently active, the user is asked to stop the printer first. |

| Menu entry | Description |
|---|---|
| 'Add a Printer' | Add new printer. |
| 'Copy Printer' | Copies the selected printer and takes over all its settings. |
| 'Delete selected Printer' | Delete the selected printer. |
| 'Discard all changes' | Discards all changes and rereads the data from the database. |
| 'Job Notification' | This icon calls up a dialog, which allows you to configure the Active Notification Interface for jobs. For further details see below. |

## Printer Table

The area below the toolbar displays all configured printers in the Océ PRISMAproduction Server network. Each entry shows 6 columns:

| Column | Description |
|---|---|
| 'Printer Name' | Name of the printer. |
| 'Printer Model' | For Océ printers: exact model name of the printer. |
| 'Printer Driver' | Type of print data processing facility (described in 'New Printer'). |
| 'Printer Type' | Continuous. Cutsheet, Twin or Triplex. |
| 'Server Name' | The Name of the server, the printer is connected to. |

The Status of the printer can be:

| Status | Description |
|---|---|
| Spool inactive | Spool daemon is down (for all printers on the server) |
| Spool active | Spool is active, the printer is inactive. |

| Status | Description |
|---|---|
| Printer active | Printer is printing (or at least waiting for a job). Don't reconfigure the printer in this state. |

## Printer Configuration Area

The configuration area is divided into 9 tabs, where each tab offers some special settings for a separate topic.

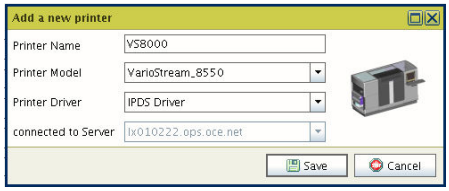
| Application | Description |
|---|---|
| 'General' | General printer settings: *'Printer Configuration: 'General''* on page 349 |
| 'Print Parameter' | Some special settings depending on the selected device type: *'Printer Configuration: 'Print Parameter''* on page 352 |
| 'Job Queues' | Set or restrict the queues, which should be allowed to be used by the printer: *'Printer Configuration: 'Job Queues''* on page 364 |
| 'Cluster' | Specify the membership of printer clusters: *'Printer Configuration: 'Cluster''* on page 365 |
| 'Colors' | Set or restrict the colors, which should be allowed to be used by the printer: *'Printer Configuration: Toner Stations'* on page 366 |
| 'Input Devices' | Devices Description of the paper input (input trays): *'Printer Configuration: 'Input Devices''* on page 367 |
| 'Output Devices' | Devices Description of the paper output (output trays): *'Printer Configuration: 'Output Devices''* on page 368 |
| 'Printer Notification' | Active Notification Interface" command for printer status changes: *'Printer Configuration: 'Printer Notification''* on page 369 |
| 'Gray Curves' | Gray curve settings for Postscript converter (available only, if UnityRip license is installed): *'Printer Configuration: 'Gray Curves''* on page 370 |

# Printer Configuration: Add a new Printer

## Introduction

Selecting the function 'Add a Printer' (+) in the 'Printer' menu or tool bar opens the following dialog:

## Illustration




## Printer Attributes

Here you have to specify the main printer attributes:

- 'Printer Name' (up to 20 characters).
- The 'Printer Model' (the list contains all Océ models, Non Océ printers, generic printers and their appropriate symbol).
- The appropriate 'Printer Driver'. (The selection here depends on the selected 'Printer Model').
- The server, which the printer is connected to.

The following drivers are available (if the respective licenses are installed):

| 'Printer Driver' | 'Connection' | 'Printer Model' | Licenses |
|---|---|---|---|
| 'IPDS Driver' | 'Network', 'Network' ' for ATwin'/' for CTwin', 'SCSI-Interface', 'SCSI-Interface' ' for ATwin'/' for CTwin', '/370-Channel (intercom)', '/370-Channel (intercom)' ' for ATwin'/' for CTwin' | Sends all kind of AFP-, Line - and Mixed data in IPDS to Océ and Non-Océ IPDS printers. | IPDS_Driver 4.0 |

| 'Printer Driver' | 'Connection' | 'Printer Model' | Licenses |
|---|---|---|---|
| 'Postscript Driver' | 'Network with LP-Protocol', 'Network with Socket+Port' | | PS_Driver 4.0 (for Océ printers)<br>DocuTech_Driver 4.0 (for Xerox Docutech printers)<br>Digimaster_Driver 4.0 (for Digimaster/Canon printers) |

| 'Printer Driver' | 'Connection' | 'Printer Model' | Licenses |
|---|---|---|---|
| | | Sends Postscript and "POD"-IOCA based AFP to Océ PostScript printers (Vario-Print 2090, 21xx, 31xx, 61xx, 62xx, CPS700 and CPS900). Sends Postscript and "POD"-IOCA based AFP to non-Océ PostScript printers (for example Canon_150, Digimaster_9110 and Xerox Docutech_6180) The input data will be converted from the IOCA format to the PostScript format. PostScript files can be printed directly using the PJM-RAW format. The printer answers as AFP printer. Consequently you can only select this data type in 'General' -> 'Data Format'<br><br>*Note:* Please note, that DigiMaster has Ticket support only (no job monitoring via printer). This is the functionality of the former DocuTech Driver and DigiMaster Driver.<br><br>*Note:* | |

| 'Printer Driver' | 'Connection' | 'Printer Model' | Licenses |
|---|---|---|---|
| | | For VP6000 also fully composed MO:DCA data (APA/LCDS) and PDF-Container based AFP (POD) are supported. | |
| 'PJL/PCL Driver' | 'Network with LP-Protocol' | PJL/PCL5 printers, especially VHV PCLprinters | PJL_Driver 4.0 |
| 'Linedata Printer Driver' | '/370-Channel (intercom)', 'Network with Socket+Port' | Prints line data in the LCDS line coded data stream on a DocuPrint without data conversion. Can also be used to print general IBM3211 based line data on line data printers, which use the /370 IBM3211 protocol. | LCDS_Driver 4.0 |
| 'Generic Driver' | 'Network with FTP-Protocol', 'Network with LP-Protocol', 'Network with Socket+Port', EXE-Subbackend, 'Centronics (LPT)' | Sends all kind of data to other systems or printers via different protocols: lp or ftp. Replaces former ftp- and lp-Backend. No data conversion is performed. | No license required |

*Note:*
Up to 32 printers can be configured per server. The selectable 'Connection' depends on the 'Printer Model'. The table lists the maximum connection for each 'Printer Driver'.

# Printer Configuration: 'Job Notification'

## Introduction

Job Notification is an open interface in the Océ PRISMAproduction Server Spool, which can be used to either integrate Océ PRISMAproduction Server into customer environments where monitoring tools are in use, or for example notify users via E-mail after their job has been printed.
Océ PRISMAproduction Server supports two types of notification:

- Notification on any printer status changes: *'Printer Configuration: 'Printer Notification"* on page 369
- Notification on any job status changes of a print-job.

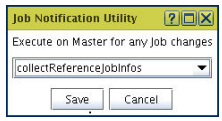
(It's currently not available for ODS preprocessing jobs!)

Internally, Océ PRISMAproduction Server executes some user configurable programs/scripts on the appropriate status changes by supplying a filename a parameter to the executed utility. This file contains all additional information about the job or the printer.
Both types of notification are configured in the Printer Configuration Manager:

- **Job ANI**: one global configurable program.
- **Printer ANI**: configurable for each printer separately.

## Job Active Notification Interface

Clicking the toolbar button ( ) or the entry in the printer menu opens a dialog, allowing you to configure the job ani utility:




The command is specified globally for all print jobs.
The command is executed always only on the master server.
In the text field of the dialog the customer is able to specify his own programs or shell-scripts, which are executed each time when one of the following conditions occur:

- A new job has been submitted
- The status of a queued job has been changed (Ready to print -> Printing -> Locked)
- A job is deleted from the queue

The specified program gets a file as the only command line parameter, which contains some information on the job:

- This is always a unique name in the whole file system.
- Directory for the temporary files: '/u/prismapro/data/ani/...'
- This file must be deleted by the program after it finishes processing the information.

**Explanation of the parameters in the temporary file:**

| | |
|---|---|
| ACTION | The action, which caused the program call:<br>SUBMIT = A new job has been submitted<br>MODIFY = The status of a queued job has been changed<br>DELETE = A job is deleted from the queue<br>**Attention**: MODIFY request can appear before the SUBMIT action, but the status will be set to preparation (PREPARE). |
| ODS_JOBID | The unique job id of the job inside PRISMAproduction. |
| FILEINDEX | Index of the current file in the list of files in one PJM ticket, starting with 1 for the first file. |
| USER | The name of the user, who submitted the job and the hostname of the machine, separated by the '@' sign (E-mail address format). |
| JOBNAME | Name of the job. |
| FILETYPE | Type of the print file: data type and resolution, separated by "/"<br>**Data type**:<br>APF = AFPDS or Linedata<br>PCL = HP-PCL data<br>**Resolution**:<br>0 dpi = default resolution<br>240 dpi = 240 dpi<br>300 dpi = 300 dpi<br>600 dpi = 600 dpi |
| FILESIZE | Size of the print file in bytes. |
| FORM | The form id of the job. |
| PRINTER | The name of the printer. |
| RANGE | The printing range of the job. |
| COPIES | The printed and the specified copy count of the job, separated by '/':<br>1st number = printed copies.<br>2nd number = specified copy count. |

| | |
|---|---|
| PAGECOUNT | The printed and the specified page count of the job separated by '/':<br>1st number = printed pages.<br>2nd number = specified pages.<br>The count of 0 pages means, that there was no page count specified with the job. |
| JOBQUEUE | The print queue (number) of the print job. |
| JOBSTATUS | The status of the print job:<br>PREPARE = Preparing<br>READY = Ready to print<br>PRINTING = Printing<br>OUTPUTCONTROL = Output control<br>FINISHED = Finished<br>ERROR = Error<br>INTERRUPT = Interrupted<br>LOCKED = Locked after printing<br>HOLD = Locked manually<br>DELETED = Deleted |

# Printer Configuration: 'General'

## Introduction

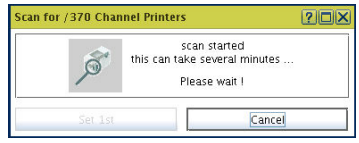
In this window enter the basic settings for the printer selected in the printer table.

## 'General' Tab

| UI Element | Description |
|---|---|
| 'Data Format' | Specification of the data type, which is accepted by the printer. For the 'Generic Driver' you can select all data formats because no data conversion is performed:<br>■ 'AFP'<br>Applies to IPDS printers as well as to printers which work with the 'Postscript Driver' and Postscript Driver (non-océ printers), because these drivers convert to AFP.<br>■ 'PCL'<br>Printer works with the PCL emulation.<br>■ 'AFP', 'PCL', 'PS', 'PDF', 'TIFF', 'LCDS', 'LDT'<br>With the 'Generic Driver' no data conversion is performed, therefore all possible formats can be printed. |
| 'Speed' | Printer speed in ppm (pages per minute)<br>The speed setting is required to check if the printer usage is covered the the class, which is available via Océ PRISMAproduction Server 4.0 license. The printer speed is also requested from the printer directly and this value overwrites automatically the speed, which was specified manually. The "Dummy" and TrueProof printers are not checked for the speed license.<br>Additionally you can select if the speed setting should be valid for 'A4-pages per minute' or for 'Letter-pages per minute'. |
| 'Resolution' | Resolution of the printer<br>■ 240 dpi<br>■ 300 dpi<br>■ 600 dpi<br>■ MRM (Multiple Resolution Mode) |
| 'Toner Stations' | Count of installed toner stations in the logical printer, e.g. Twin = 2 stations, Triplex=3, ...<br>The symbol of selected printer model is displayed only for information. The same image is used in the "Printer Pool" window. |

| UI Element | Description |
|---|---|
| 'SNMP Connection' | 'Optional: hostname or IP-address of printer's snmp management or printer panels' |

## 'Connection'

| UI Element | Description |
|---|---|
| 'Type' | The connection type depends on the printer driver selected: For the different connection types see *'Printer Configuration: Add a new Printer'* on page 342 |
| 'Scan connected Printers' ( ) | This button is enabled only for SCSI and 370 connections. It opens an application, which scans the system and displays all found SCSI and 370 devices on the appropriate server. If at least one device is found, you can select 'Set 1st' to automatically take over its connection settings into the next selection fields.<br>  <br>*Note:*<br>The printer configuration manager does not check, if the required physical connection is really available on the server, for which the printer is configured. |
| 'Electronic Switchbox' | If there is an electronic switchbox between server and printer installed, it can be necessary to enable this checkbox. But enable this item only, if the switchbox rejects to switch the printer to another host. Internally the 370-Channel board(s) will set in reset state, when they are not used, but it takes more time to get them running, every time the printer is enabled. |
| 'Unit ' | This is the physical number of the I/O interface, starting with 0.<br>**Example**:<br>1st SCSI Controller or 370-Channel board has the number 0.<br>2nd SCSI Controller or 370-Channel board has the number 1.<br>For LPT printers you can select units LPT1 to LPT3. |
| 'Address ' | Address on the 370 Channel or the SCSI bus. |
| 'Host' | Tcp/ip-address or the hostname of the destination system. |

| UI Element | Description |
|---|---|
| 'Port' | The tcp/ip port number, which is expected by the receiving system. |
| 'Remote Queue' | The name of the printqueue on the destination system. |
| 'Directory' | The directory on the destination system, where the data has to be transferred. |
| 'User' | The username, which should be used for user ftp login. |
| 'Password' | The password, which should be used for ftp login. |

# Printer Configuration: 'Print Parameter'

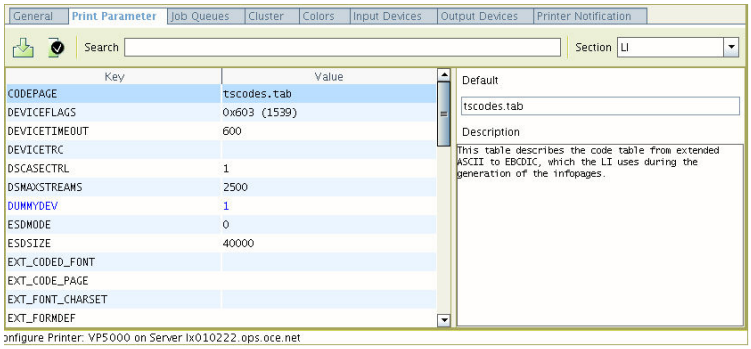
## Introduction

Depending on the backend type of the selected printer (AFP, PS, PCL ...) this section allows you to modify various sets of print parameters. Thus you can adjust the performance of the printers, set up dummy printers and so on. Details on the print parameters and backends are explained in the Océ PRISMAproduction Server Technical Reference Guide.

For AFP printers you can select predefined tuning sets, which allow you to easily modify the print parameters for example to enable traces or to drive non Océ printers.

***Caution:***
Modifying the print parameters might have a decisive impact on the overall performance of the system.

## Illustration




## Available Drivers/Backends

At the moment the following Backends/Drivers are available:

- 'IPDS Driver' (see *'Printer Configuration: Printer Drivers/Backends'* on page 355, the Print Parameters are desctibed in detail in the Océ PRISMAproduction Server Administrators Guide.
- Postscript Driver (see *'Printer Configuration: Printer Drivers/Backends'* on page 355).
- 'PJL/PCL Driver' (see *'PCL-Module: General Features'* on page 232).
- 'Linedata Printer Driver' (see *'Printer Configuration: Printer Drivers/Backends'* on page 355).
- 'Generic Driver' (see *'Printer Configuration: Printer Drivers/Backends'* on page 355).

For the possible combinations of printer drivers and connections see *'Printer Configuration: Add a new Printer'* on page 342.

## Setting up Print Parameters

Each time the printer is started in the 'Printer Pool' window, all these parameters are stored in '/u/prismapro/cfg/printers/<Printer name>/backend.ini'. <Printer name> means the name of the logical printer in the 'Printer Pool' Window.

| UI Element | Description |
|---|---|
| Section | The section can be selected in the combobox on the right side of the toolbar. |
| Search | The 'search' text field offers a possibility for finding a certain row quickly. |
| Key-Value list | To modify a value, double click on it's entry in the Key-Value list. Values marked with 'Internal use only' cannot be changed. |
| Default | The area next to the Key-Value list displays the default value and a short description for the selected keyword. Click this icon to reset all values to their defaults. |
| Description | Apart from the description on the screen, the parameters are explained in the Océ PRISMAproduction Server Administrators Guide. |

## Tuning Sets

Click this button to enable predefined tuning sets, which allow you to easily modify the print parameters of AFP/Linedata printers e.g. to enable traces or to drive non Océ printers.

For details see also Océ PRISMAproduction Server Technical Reference Manual, chapter 'Print Parameter' -> 'Available Tuning Sets'.

At the moment the following tuning sets are available:

- Enable all Job Infopages
- Disable all traces
- Activate media name mismatch (MMT) message
- Disable all Job Infopages
- Non Oce Printers (Host) and APA controller adjustment (240 DPI)

- Enable full traces
- Enable SCSI interface
- Deactivate MMT adjustment
- Enable all File Infopages
- Non Oce Printers (300 DPI e.g. LCDS --> XEROX)
- Non Oce Printers (600 DPI / MRM e.g. --> IBM)
- Disable all File Infopages
- Activate media attribute mismatch (MMT) message
- Disable SCSI interface

**Example for enabling full traces for IPDS printers**

[TRACE]
TRACEFILE_LIMIT = 1900000
TRACEFLAGS=0xFFFFFFFF

# Printer Configuration: Printer Drivers/Backends

## Introduction

There is a variety of printer drivers and backends available in Océ PRISMAproduction Server, which allow you to drive a wide range of printers.

For the possible combinations of printer drivers and connections see *'Printer Configuration: Add a new Printer'* on page 342.

*Note:*
Some of the drivers/backends need an extra license to work with them.

*Note:*
For details concerning the print parameters see Océ PRISMAproduction Server Technical Reference Guide, chapter 'Print Parameter'.

## Available Drivers/Backends


- *"IPDS Driver' (AFP2IPDS Backend)'* on page 356
- *"Linedata Printer Driver' (LCDS)'* on page 357
- *'PostScript Backends (Xerox 6180, VP2110, VP61xx, OCE31x5, Canon 150, CPS700-900)'* on page 360

# 'IPDS Driver' (AFP2IPDS Backend)

## Introduction

The AFP2IPDS backend, also called SPS (Smart Print Subsystem), receives data in line data or structured field format. It composes data for printing according to the parameters defined for the job. (Parameter description see ...). This backend is especially designed to support the enhanced functionality of the Océ high volume printers, which is partially outside the scope of "standard" IPDS.
The basic functions of the backend are:

- Together with print resources data is converted to the printer-specific IPDS format.
- Print resources can be embedded in print data; if not, they are retrieved from one or more external resource libraries. (Resource handling see ...)
- The backend also determines the alignment of the print pages on the physical medium: depending on how parameters are set, two consecutive or identical pages can be printed side by side, for instance, and printing can be on either one or both sides of the medium. If specified in the print parameters, the backend also inserts information pages (header, separator, message and trailer pages).
- The backend reacts directly and efficiently to problems that occur during execution of print jobs.
- It detects and distinguishes device, data and user errors and reports them.

*Note:*
For details concerning the print parameters see Océ PRISMAproduction Server Technical Reference Guide, chapter 'Print Parameter'.

## AFP2IPDS Output Backend and Océ PRISMAproduction Server Server

The mission of the AFP2IPDS backend in the server context is to enable the implementation of an AFP2IPDS capable output management system.
The AFP2IPDS backend is running under the control of the Océ PRISMAproduction Server Output Distribution System (ODS). It is fully integrated in the Océ PRISMAproduction Server Server workflow. Océ proprietary interfaces are used to allocate the jobs and access the print data which is stored in the Océ PRISMAproduction Server spool. Different types of printer attachments are supported (SCSI, TCP/IP, /370 channel). Multiple instances of the AFP2IPDS backend may be running in parallel. The number of them is only restricted by the resource limitations of the system.

# 'Linedata Printer Driver' (LCDS)

## Introduction

The license LCDS_Driver 4.0 is required to use this driver. With this package you can receive LCDS line data jobs (typically from an IBM host via TCP/IP download) and pass them through to a Xerox DocuPrint (via TCP/IP or /370 channel).

*Note:*
For details concerning the print parameters see Océ PRISMAproduction Server Technical Reference Guide, chapter 'Print Parameter'.

## Functionality

The functionality is similar to IBM's "Job Entry System":

- insert an FCB record,
- prepend 2 header and append 2 trailer banner pages,
- convert any type of carriage controls (ANSI, IBM3211, NONE) into IBM3211,
- drive the physical printer.

(No ifilter, xfilter, AFP, IPDS is involved in this.)

## Printer Configuration

Open 'Configuration' -> 'Printer' and create a new printer with the 'Xrx LCDS Driver'. When you choose 'DocuPrint' as the printer name, you will have the advantage to run the demo-job (see below) and MVS-download-jobs without any modification of a job-ticket.
After clicking 'Save', the 'Data Format' XEROX LCDS will be predefined in the general printer settings.
Complete the configuration by setting the /370 channel parameters:

- '/370 channel unit' must match the hardware equipment of your Linux server
- '/370 address' must match the /370 address of your Xerox destination printer

or by setting the TCP/IP parameters, respectively:

- 'IP-Address' must match the IP-address of your Xerox destination printer
- 'Port' must match the port number where your Xerox printer listens

Like in most other printer types the Print parameter "DUMMYDEV" is supported:

- DUMMYDEV 0 = sends output to the physical printer
- DUMMYDEV 1 = discards output, which may be useful for testing

## FCB configuration

You can configure this item with an own applet, which you select from the Explorer tree.

## Testing with the Demo-Job

After having configured an LCDS-Printer and before receiving MVS-Download jobs, we recommend to print the demo job. This demo job contains 4 pages of EBCDIC-coded data with ANSI carriage controls. The jesfilter will add an FCB ("FCB1"), add 2 header banner pages, convert ANSI to IBM3211 carriage controls, and add 2 trailer banner pages before submitting the job to the spool:

- Open the PJM with an LCDS job ticket. Open the job ticket '/u/prismapro/demo/jes/jesdemo.TIC'.
- Under 'Printer' select the LCDS printer you created before in the printer configuration.
- Activate 'Print' and 'Header/Trailer' in the 'Job Attributes' section of the PJM.
- Finally submit the job with the 'Submit' button.

## Job-Queue

LCDS_Driver-Jobs appear in the Job-List with 'Type'='LCDS". This assures that the spool will direct LCDS-jobs to an LCDS-printer, and not to an AFP-printer. Other jobs usually appear here with 'Type'='AFP' (including ordinary standard LCDS-jobs converted by the xfilter).

Restrictions:

- Page number (see column "Pages" in the job list) is not known exactly. This is because Océ PRISMAproduction Server cannot know the page structure, as the break-down of the job into pages would require JSL-information (VFU, PDE, ...) which is available on the Xerox-destination-printer only. Therefore a simple-minded page-counting has been implemented: Each advance across channel-1 is counted as one page.
- Printing page ranges (see column "Print range") is not supported (same reason as above).
- Check-pointing is supported, but the only check point is at job begin (same reason as above).
- Accounting records are written. But the accounted page-numbers have the same restriction as mentioned above.

Printers configured as "XEROX LCDS Printers" appear in the printer pool. You can operate (activate, deactivate, reset, interrupt, assign to job classes) them in the usual way. Successful operation of LCDS jobs will produce messages in the messages window.

## Download Configuration

- Open the "Download Configuration" and create a new Download port.
- Enter the port number which matches the TCP/IP-printer in MVS.
- Click 'OK'. Then you have to change the following setting:
  - Set "DefaultTicket" to ".LCDS_Driver.TIC" (note the leading dot)

This job ticket sets the job type to "LCDS", switches banner generation on and selects the printer "DocuPrint".
Without these settings the JES-filter will probably complain because of nonsense record lengths.

Restriction:

- LCDS-Driver tickets are not yet fully supported by the PJM-GUI. Currently the GUI doesn't enforce selecting a printer of type "LCDS Driver", and it displays many parameters (like JDE/JDL, LCDS-preprocessing) although these are meaningless in the LCDS-Driver.
  Do not save the template ticket '/u/prismapro/cfg/jobinput/ticket/.LCDS_Driver.TIC' with the PJM-GUI. If you want to edit such a ticket, you should better use a text editor.

On MVS-host side you will need:

- a properly configured TCP/IP-printer (with the IP-Address of your Linux-server and port number of your download daemon)
- some print-jobs (with ANSI, IBM3211, or without carriage controls)

# PostScript Backends (Xerox 6180, VP2110, VP61xx, OCE31x5, Canon 150, CPS700-900)

## Introduction

The purpose of the PostScript Backends is as follows:

- Printing of a given PostScript file.
- Conversion of a POD file into PostScript. Number or media based tray selection will be translated to PostScript accordingly.
- Accounting records will be written for the media transferred.
- Some backends (VP2110, Xerox 6180, CPS900) are able to monitor the print process.

The printers can be driven by two input data streams:

- By PostScript prepared for the printers: These files have to be spooled in using the so called PJM RAW format.
- By POD-AFP. In this case the backend converts the POD-AFP into PostScript. All parameters of the Professional Document Composer are preserved and transferred to PostScript.

*Note:*
For details concerning the print parameters see Océ PRISMAproduction Server Technical Reference Guide, chapter 'Print Parameter'.

## Configuration of the Backends

The backend is ready-to-print after setting up the IP-address of the printer and the name of remote queue on the 'General' tab in the 'Printer-Configuration'.

- Océ PostScript printer (not CPS):
  Here the queue will not be analyzed. By default LP is set as queue.
- Xerox DocuTech:
  The queue will be analyzed. You have to define a new print queue on the Xerox DocuTech or you have to set an existing queue and to activate this queu on the printer. The insert the name of this queue in the general backend parameters. Otherwise the printing will be aborted with an LP error.
- CPSxxx:
  The queue will be analyzed. Each queue has its own properties. By default the queues "print" and "hold" exist. They almost correspond to the settings of the so called mailbox.

**Queue print**: A job which is sent to this queue will be printed immediately. In this case 'printed' means that the job has been ripped and sent to the CPS by the EFI controller. The EFI controller then reports, that the job has been printed.
**Queue hold**: In this case the job remains in the EFI controller and has to be activated separately.

*Note:*
For details concerning the print parameters see Océ PRISMAproduction Server Technical Reference Guide.

# Printer Configuration: Custom specific Infopages and Resources for Configured Printers

## Introduction

The systems creates automatically new runtime printer directories, which contain printer specific files, for example resources for infopages. This is done when a new printer is configured AND always on startup of the system. During this procedure, the content of old printer runtime directories is deleted, if they exist.

The runtime printer directories are build and filled in 5 steps:

1. Every configured printer leads to a sub-directory in '/u/prismapro/cfg/printers/' where the name of the subdirectory is the name of the printer.
   Exception: Names, starting with a dot "." are not valid printer names and are not printer directories.
2. The content of a template directory in '/u/prismapro/cfg/printers/.system/XXX.YYY' is copied into the created directory.
3. The same procedure is repeated for the directory 'u/prismapro/cfg/printers/.custom/XXX.YYY', but only if it exists.
4. At last the contents of the directory '/u/prismapro/cfg/printers/.custom/ PRTNAME' is copied into the new printer directory too (only if the directory exists).
5. At last the content of the directory '/u/prismapro/cfg/printers/PRTNAME' is also copied into the new printer directory (this directory always exists). This directory is useful for the customer to store infopages-resources for special printers.

## Description of XXX , YYY and PRTNAME

"XXX" is the internal name of the general backend type, for example "afp" for AFP2IPDS-Backend:

| XXX | Backend |
|---|---|
| afp | IPDS-Backend |
| gen | Generic Backend |
| ops | PostScript Backend |
| pjl | PJL/PCL Backend |
| xdp | LCDS Backend (Linedata Printer Driver) |
| xdt | LCDS Backend (Linedata Printer Driver) |

"YYY" represents the supported resolutions:

| YYY | Resolution |
|---|---|
| 144 | 144 dpi |
| 240 | 240 dpi |
| 300 | 300 dpi |
| 600 | 600 dpi and MRM-Printer |

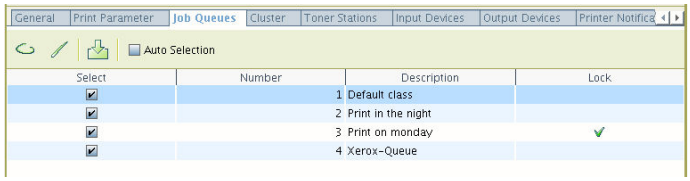
"PRTNAME" has to be the name of the created printer.

# Printer Configuration: 'Job Queues'

## Introduction

A printer can print jobs from different job queues. All job queues are configured with the 'Job Queues Configuration' tool (see: *"Job Queues Configuration"* on page 375
On this tab the administrator has to specify, which of the configured job queues 1-999 should be allowed to be used by the printer. In further processing, the operator will be able to select only the allowed queues for the printer in the 'Printer Pool' window.

## Illustration




## 'Job Queues' Tab

The list shows all available job queues in the system. To allow or forbid the usage of a certain queue for the displayed printer, the checkbox in the first column has to be (de)selected.
Use the tool bar icons to select: or deselect: all entries in the list.

If the check box 'Auto Selection' is activated, all entries in the list will be selected automatically.

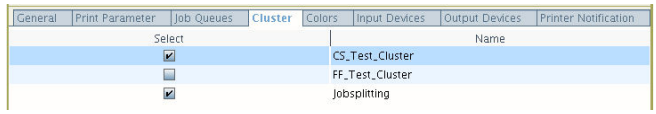
If you click the icon: a window is opened which allows you to add or to configure job queues. The functions in this window are the same as described in: *"Job Queues Configuration"* on page 375.

# Printer Configuration: 'Cluster'

## Introduction

The system offers a possibility to build printer cluster, which consist of more than one logical printer. The same logical printer can also be a member of more than one cluster. Clusters are configured with the *"Cluster' Configuration'* on page 276 tool. They appear as "virtual" printers in Océ PRISMAproduction Server environment.
On this tab the administrator assigns selected printers to one cluster or more than one cluster.

## Illustration




The list shows all available printer clusters configured in the system. The clusters can be defined in the Océ PRISMAproduction Server Explorer under 'Configuration' -> 'Cluster'. To add or remove the membership of the current printer to a cluster, the checkbox in the first column has to be (de)selected.

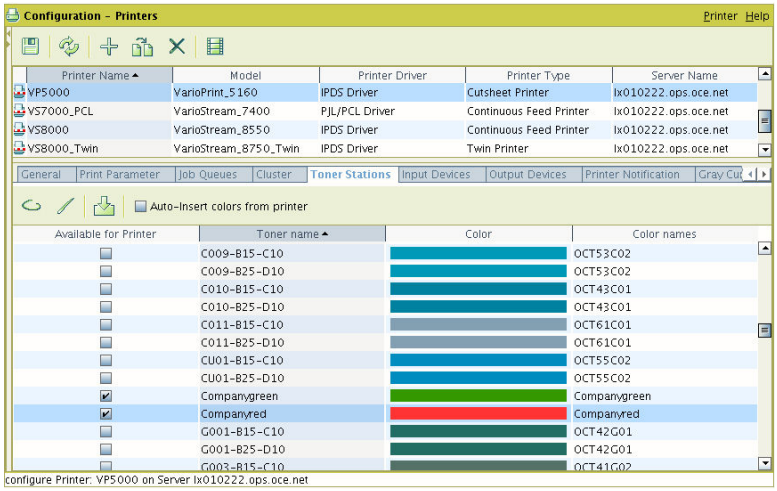
*Note:*
There is no check, if the printers in a cluster are compatible with each other. The administrator is responsible for building reasonable clusters. The PJM addresses a cluster like a single logical printer. Most of the attributes of the first logical printer in the cluster will be used for the whole cluster (= virtual printer)

# Printer Configuration: Toner Stations

## Introduction

If a printer is able to print multicolor jobs, it's required to configure the available toners for the printer. The toners are configured with the *"Consumables' Configuration"* on page 322 application. In this tab the administrator has to specify, which of the available printer colors are usable for the current printer. This does not mean, that all of the toner stations are built in at the same time.

## Illustration




## Toner Stations Table

The table shows all user defined toners in the system including all toner colors which can be delivered at the moment by Océ. To allow or forbid the usage of a certain color for the displayed printer, the check box in the 'Available for Printer' column has to be (un)checked.

The toner colors which are checked are then selectable in the PJM 'Job Attributes' -> 'Print' dialog under 'Color Selection'.

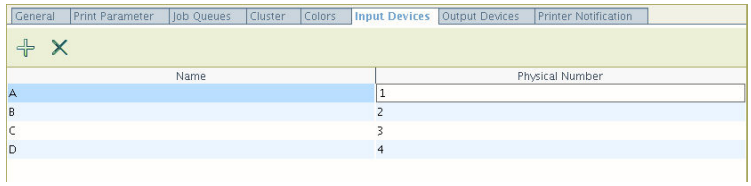
See also: *"Workflow 'Color Selection"* on page 578.

# Printer Configuration: 'Input Devices'

## Introduction

On this tab the name and number of input devices is configured for current printer. Devicecs can be added or deleted.

## Illustration



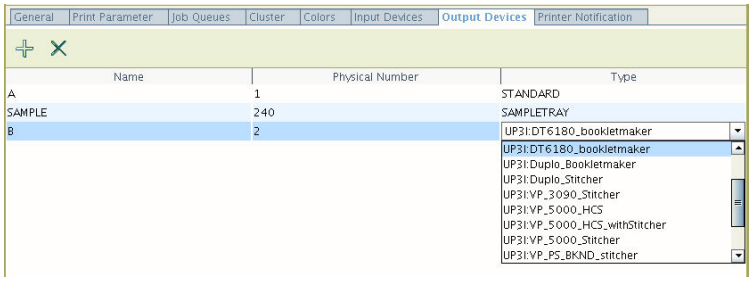

*Note:*
Even a continuous feed printer has at least one "input tray" for continuous feed paper.

# Printer Configuration: 'Output Devices'

## Introduction

On this tab the number of output trays is configured for current printer.
From a list you can select the type of postprocessing device you want to use with the output tray.

## Illustration




*Note:*
Even a continuous feed printer has at least one "output tray" for continuous feed paper.

# Printer Configuration: 'Printer Notification'

## Introduction

This combobox offers only files (scripts or programs), which are stored in the path '/u/prismapro/bin/ani/' and it's subdirectories. All programs, which names start with an dot ("."), are ignored.
The command must be specified for each printer separately. Different commands can be used.
The command is executed at every change of the printer status and always only on the master server.
The specified program gets a file as the fist command line parameter, which contains some information on the job. This file must be deleted by the program after it finished processing the information. This is always a unique name in the whole file system.
Directory for the temporary files:'/u/prismapro/data/ani/...'

## Illustration

## Explanation of the parameters in the temporary file:

| | |
|---|---|
| PRINT-ER | The name of the printer. |
| STATUS | The new status of the printer:<br>INACTIVE = Printer is inactive.<br>NOTREADY = Printer is not ready.<br>MESSAGE = Printer waits on an operator reply.<br>HALTED = Printer is Halted after job interruption.<br>WAITING = Printer waits on a multihost network printer.<br>PRINTING = Printer prints.<br>IDLE = Printer waits for a print job.<br>STARTING = Printer is starting.<br>DRAINING = Printer is draining.<br>LICENSE = Printer waits on a free print speed license. |

# Printer Configuration: 'Gray Curves'

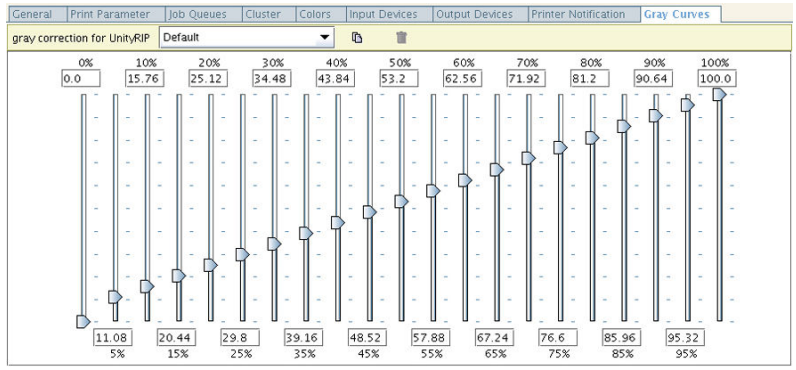
## Introduction

*Note:*
This function is only visible/usable if a valid Unity_RIPR license is installed.

**Definition**

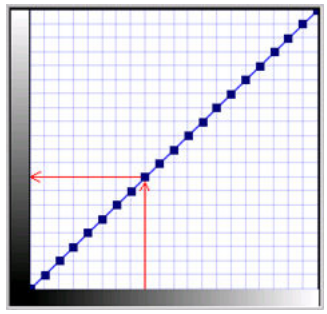
This function was originally designed for conventional printing processes and basically helps to optimize physically different printing units for a consistent print image. This applies basically also to digital printers. The same datastream may have different results on different digital printers. These differences are especially apparent with gradients and raster images containing different gray or color gradients.
Therefore the printer transfer curve has been implemented to enhance the result oft the RIP process for every printer individually.
If you are converting and printing PS or PDF files, you can modify the gray curves using the slide buttons on this tab. This enables printer-specific corrections to be made to the gray values. If this parameter is not set, grays that are adapted to the Océ printing systems are used instead of the default grays of the UnityRIP.
It is possible to make corrections to gray values which are read from a file. The correction file contains 21 values, with one value per line. Values can be between 0 and 100000. The value 100000 corresponds to a PostScript gray of 1.0, i.e. an intensity of 100% (the lightest value). The 21 values begin with a substitute for 0% gray and end with the 21st value for 100% gray. In a file of 21 values, the increment between the gray values on each line is 5%.
When printing digitally these variations in the printer hardware do not have such a big effect. However you can use this function to modify documents with problematic brightness and/or contrast in the images.

## Illustration




## Use of the Function

The sliders of the dialog (see above) represent a mathematical curve, which leads in its default position almost linear from the bottom left corner to the top right corner of the window. This results in a linear - therefore even - conversion of the input gray values to the output unit. The drawing below illustrates the connections between in- and output.

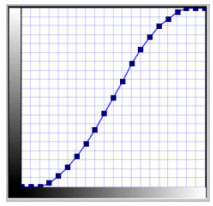


The axis (left) represents the gray shades the output unit (in this case the printer) is capable of. The horizontal axis (bottom) represents the gray shades of the input unit (here PS or PDF).

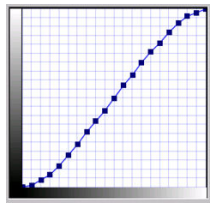
The transfer curve now behaves like a axis of reflection, with which from the gray values of the bottom axis the values of the left axis are calculated. If the course of the curve gets more flat, the range and the position of the gray values of the left axis will be shifted down. This has the effect that in the output data stream not the whole spectrum of possible gray values is supported and the resulting images will be darker with less contrast. Shifting the whole curve up results in an evenly brighter image, shifting the whole curve down darkens the image. To specifically change critical areas of an image like dark shadows and bright lights, it is sufficient to move the dots of the respective areas. To avoid rough

changes and gaps in the gradient, the curve is usually shaped as an 'S' or a bow with smooth transitions.

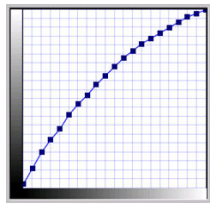
## Examples:



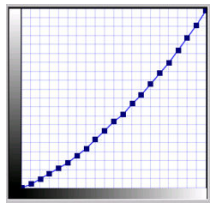
**High contrast**: The difference between bright and dark are very distinct.



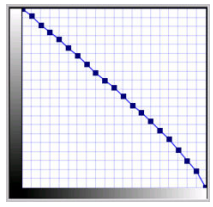
**Low contrast**: The difference between bright and dark are not so distinct, the image seems to be a bit 'flat'.

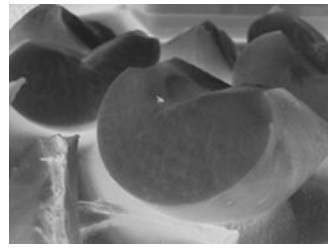


**Brighter** in the middle.

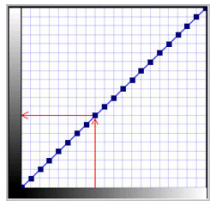


**Darker** in the middle.





Such a curve turns every positive pattern into a negative.



The 'normal' image: The gray shades are converted 1:1.

If you are converting and printing PS or PDF files, you can modify the gray curves using the slide buttons on this tab. This enables printer-specific corrections to be made to the gray values. If this parameter is not set, grays that are adapted to the Océ printing systems are used instead of the default grays of the UnityRIP.
It is possible to make corrections to gray values which are read from a file. The correction file contains 21 values, with one value per line. Values can be between 0 and 100000. The value 100000 corresponds to a PostScript gray of 1.0, i.e. an intensity of 100% (the lightest value). The 21 values begin with a substitute for 0% gray and end with the 21st value for 100% gray. In a file of 21 values, the increment between the gray values on each line is 5%.

Click this button: to save your settings on this master in the Océ PRISMAproduction Server database. This allows you to apply these settings to other printers by selecting the

respective entry from drop down list next to the icons. You are asked to enter a name for the greyscale setting before it is saved.
To delete the settings again, click the delete button: ✕. If you select 'Default', you can always reload the default settings.

It is up to the proficiency and the experience of the user, to find matching values for his task. Sometimes several tests have to be performed, to achieve acceptable results.

*Note:*
This procedure can only be applied to documents with a color depth of more than 1 bit (images and graphics with more than one gray shade). Because UnityRIP transforms the gray values based on the list of values you have created, you can use this function only with this converter. TIFFs (or bitmaps) which have been created by the DocSetter and have been saved as PDF, are simulating gray shades already with a raster. They only have a color depth of 1 bit (black and white). Such documents cannot be changed anymore using the transfer curve, because the gray shades have already been transformed to raster dots.

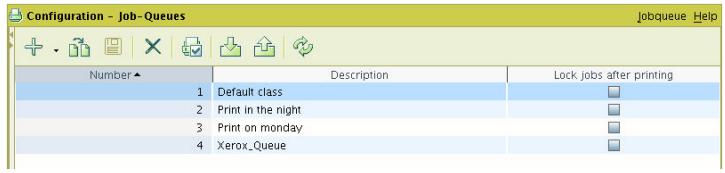
# 'Job Queues'

## 'Job Queues Configuration'

### Introduction

Select 'Configuration' -> 'Job Queues' to configure the job queues to be used in this Océ PRISMAproduction Server network. You can also use this configuration interface to assign the job queues to the printers.

### Illustration




### Column Titles

| Column | Description |
|---|---|
| 'Number' | This is the number with which the job class is identified in other interfaces. The job class must be a number between 1 and 999. |
| 'Description' | The description is a text of your choice that briefly profiles the class, for example "Print in the night". |
| 'Lock jobs after printing' | When this column is enabled, a job in this class will remain in the list of active jobs until it is explicitly deleted. It receives the status 'finished-locked'. This function can be used for test-printing – the results can be checked before the full run is printed.<br>If 'Lock jobs after printing' (=Hold) is active for a job queue, this will be displayed in the PJM job properties dialog and in the filter dialog. |

## 'Jobqueue' Menu and Tool Bar

| Menu Entry / Icon | Description |
|---|---|
| 'Add new Queue' | Adds a new job queue to the list. The default queue name will be 'Job Queue (serial number)'. Modify name and description by double clicking the corresponding fields.<br>If you click the small arrow next to this icon, a pop up menu appears with the following options:<br>'New Queue':<br>See above.<br>'Insert Queue Areas ...':<br>Opens a dialog where you can specify a range of job queues to be added to the list. Ranges between 1 and 999 are possible. You can also define a description for the queues to be added. If you define #, ## or ###, these characters will be replaced by numbers (for example #=7, ##=07 and ###=007).<br>'Map MVS Queues ...':<br>Opens a dialog where you can map queues, which have been defined on an MVS host system. 'Base-Number:' Default is 100, i.e. the first number of the MVS queue inserted is 100. The base number range is from 01-950. You can also define a description for the queues to be added. 'MVS #' is the recommendation. In this case '#' is replaced with the MVS names A-Z and 0-9.<br>**Example**: 'MVS #' generates 'MVS A', 'MVS B', ...'MVS Z', 'MVS 1', ...'MVS 9' |
| 'Add Copy of a Queue' | Adds a copy of the marked queue entry.. |
| 'Save Queue Configuration' | Saves the current configuration in the database. |
| 'Delete Entries' | Either delete the selected queue or all queues from the list. |
| 'Add Queues to Printers' | Opens a dialog where you can assign the selected queue(s) to the printers configured in the system. |
| 'Import Queues' | Opens a file selection dialog to import saved job queues. You can select to export from the V2.x or V3.x format. |

| Menu Entry / Icon | Description |
|---|---|
| 'Export Queues' | Opens a file selection dialog to export the current job queues list. You can select to export in the V2.xx or V3.xx format. |
| 'Reload configuration' | Reloads the actual status of the data stored in the database. Any changes that you have made via the interface are discarded if you do not save them prior to executing this function. |

# 'FCB'

## 'FCB' Configuration

### Forms Control Buffer

In the configuration list you can open the FCB (Forms Control Buffers) configuration applet. With this applet you can view and edit the FCB files installed in the '/u/prismapro/cfg/fcb/' directory. You can create FCB's, delete FCB's, change their channel assignments, or change their number of lines.
Per installation these FCB's are identical in name and contents to the standard FCB's defined by IBM. So you will probably never edit these FCB's.

*Note:*
After installation it is a good idea to transfer all the system FCB files from the IBM host (stored in 'SYS1.IMAGELIB') to the Océ PRISMAproduction Server master (directory '/u/prismapro/cfg/fcb/').

**Restrictions**:

- Editing FCB files on slave servers is not supported.
- Viewing/editing the horizontal shift defined in the FCB is not supported.

# 'LCDS Jobs'

## Overview of LCDS-Module Processes

### Introduction

The LCDS-Module includes a set of programs running under LINUX as different processes to convert and prepare original XEROX applications and resources for printing on Océ printers and on standard IPDS printers.
The processes can be concatenated, resulting in a process chain of one or more process sections.

The LCDS-Module has a fixed directory structure. This is shown below:

*Note:*
<catalog> is the name of the active customer catalog. The default is DEFAULT.

### Process Overview

| Directory | Contents |
|---|---|
| /u/prismapro/bin | Modules (e.g. xfilter, xdl, ...) |
| /u/prismapro/bin | Catest, spool |
| /u/prismapro/cfg/lcds | Configuration files |
| /u/prismapro/lib/uimng/jcf | Job control files |
| /u/prismapro/data/cat/<catalog>/frm | Input forms (Xerox format) |
| /u/prismapro/data/cat/<catalog>/frm_conv | Converted forms |
| /u/prismapro/data/cat/<catalog>/fnt | Input fonts (Xerox format) |
| /u/prismapro/data/cat/<catalog>/fnt_conv | Converted fonts |
| /u/prismapro/data/cat/<catalog>/img | Input images (Xerox format) |
| /u/prismapro/data/cat/<catalog>/img_conv | Converted images |
| /u/prismapro/data/cat/<catalog>/lgo | Input logos (Xerox format) |
| /u/prismapro/data/cat/<catalog>/lgo_conv | Converted logos |
| /u/prismapro/data/<catalog>/jsl | Input JSL (ASCII format) |
| /u/prismapro/data/<catalog>/xrx | Input data set (I - Filter) |

| Directory | Contents |
|---|---|
| /u/prismapro/data/<catalog>/rds | Converted resources |
| /u/prismapro/data/<catalog>/priv | Temporary converted resources (X-Filter) |
| /u/prismapro/data/<catalog>/priv | Converted resources (temporary inline graphics) |
| /u/prismapro/data/<catalog>/tmp | Interface files: X-Filter -> Spool + Accounting and intermediate pds output files for NTO1 processing. |

## Input Filter

All input processing is handled by the Ifilter. It receives data from tape, cartridge, floppy and hard disk and imports it into the LCDS-Module internal format. All read data and resources are stored in the directory '/u/prismapro/data/cat/<catalog>'.

The print data stream is handed over to xfilter via "named pipe" without being written to disk due to performance reasons.

## XRC

The XRC takes Xerox print resources of the types FNT, IMG, LGO, FRM as input and converts them to the LCDS-Module internal resource format in the directory '/u/prismapro/data/cat/<catalog>/rds'.

## XDL Compiler

The XDL Compiler compiles JSL files and stores the results in the LCDS-Module internal format. The compiled information is later used by Input Filter and X-Filter for processing print data.

## X-Filter

The X-Filter processes the print data stream and creates output which can be printed on the Océ printers and on standard IPDS printers.
Document interleaved graphics (if the job contains any) are temporarily stored in '/u/prismapro/data/cat/<catalog>/priv'.
Inline resources with PURGE are stored in 'u/prismapro/data/cat/<catalog>/priv'.

## Spool Job

This module generates the print job entry in the OPS PRISMA spool. It accepts input from the X-Filter and from the Sample.

## Sample

The Sample is a utility to create sample printouts of resources such as fonts, images, logos or forms.

# LCDS Parameter Configuration: Job Control Files (JCF)

## Introduction

Each data type of the LCDS PJM ticket and each LCDS Explorer application has variable parameter fields, which are filled in by the user. In the background a JCF (Job Control File) belongs to each window. These JCFs are located in the directory '/u/prismapro/lib/uimng/jcf'. When a process is started (for example 'Copy'), all selected parameters, like Input Device or filename, are written in a temporary **Copy.JCF**, which is handed over to the appropriate program(s) (for example 'Ifilter' and 'XRC') for further processing. After these processes have been ended, this temporary Copy.JCF is deleted, but the original is still existing.

In the following table you can see the combination of an application, data type or window and the JCF.

## JCF Overview

| Applet / Action | JCF Name |
|---|---|
| LCDS Resouces and PJM Format Resource / Copy | Copy.JCF |
| PJM Format JSL / Compile | Compile.JCF |
| PJM Format Resource / Convert | Copy.JCF |
| LCDS Resources / all actions | LCDSResources.JCF |
| PJM Format LCDS Data / PrintLCDS | PrintLCDS.JCF |
| PJM Format Sample / Sample | Sample.JCF |
| LCDS Resources Import | XResImport.JCF |
| LCDS Resources Export | XResExport.JCF |

*Note:*
Some of JCFs can be edited by the UI (see *'LCDS Parameter Configuration: 'LCDS Jobs' Window'* on page 385), others not. In most of the cases it is not necessary to change these parameters.
For a description of the parameters see *'LCDS Parameter Configuration: Description of the JCF Parameters'* on page 387.

## Layout of the Job Control File

The **Job Control File** (JCF) contains all job-specific parameters. It is created by the print service. When the job is started, it's name is transferred to the appropriate programs as a parameter. The information is read by all processes involved.

The file is divided into sections, each destined for a specific process. These sections are marked by the lines 'Begin-<id>' and 'End-<id>'. When the file is generated, the name and the section description are communicated to each process: for example, the input filter is started with 'ifilter jobfile01 I-Filter'. Thus, the process identifies its section in the file 'jobfile01' by looking for the line 'Begin-I-Filter' (for example).

The sequence of the sections is arbitrary, as they are selected according to keywords and not according to the sequence. In addition to the header section, each process has to have its own section.

Keywords and parameters are case-sensitive, for example the name 'Subcat' is **NOT** identical with 'SUBCAT" or 'SubCat' or similar combinations.

At the moment, a legible text file is used as the Job Control File. It can therefore be edited with standard editors. In the event that a different file format is used in future, the necessary tools for working on this new format will be supplied.

*Note:*
Only the system administrator should be allowed to edit the JCF (for example to set trace levels). Parameters changed incorrectly can cause critical system problems!

**A JCF has the following general layout**

| | |
|---|---|
| Header information (delimited by Begin-Header / End-Header) which contains global, process-wide assignments. | |
| Section information (delimited by Begin-<section> / End-<section>) which consists of the following three parts: | |
| 1. | General assignments, specific for the defined process. This part is optional. |
| 2. | ComInfo information (delimited by Begin-ComInfo / End-ComInfo) which defines the communication-interface and serves as constancy verification in the LCDS-Module. |
| 3. | One or more subsections (delimited by Begin-<subsection> / End-<subsection>) which define the sub-process task and the control data for this sub-process. |

## Sections of the Job Control File

### Header

The header section is mandatory for each Job Control File. It contains parameters of general validity as well as the setup of the process chain (i.e. names and sequences of the dynamic processes). The information in the header can be read by all processes.

### Input Filter

- **ComInfo**: This section contains information on each process for the internal GCI communication interface and is mandatory for each process. The only parameters which may be changed control the "GCI-user-trace", i.e. the communication interface trace.
- **Device**: This section contains information on the data source of the input filter which, as a single process, reads directly from a device (tape drive, floppy drive, ...). All other processes obtain their input data via the GCI (see also 'LCDS –Module Online Configuration').
- **Subcatinfo**: In this section, you define all subcat types used by the input filter, together with the maximum number of members that may be open at one time. In version 3.0, this number is always 1. The subcat types JOB and XPAR always have to be stated, the others only if required. If resources are converted (without type definitions), for example, FNT, LGO, IMG and FRM have to be stated. No parameters may be changed in this section.
- **Action**: The action section contains parameters for a specific action of the input filter. A Job Control File may contain several action sections. The actions are processed sequentially by the input filter.

### Resource Converter (XRC)

### Sample

### SpoolJob

### XDL Compiler

### X-Filter

# LCDS Parameter Configuration: 'LCDS Jobs' Window

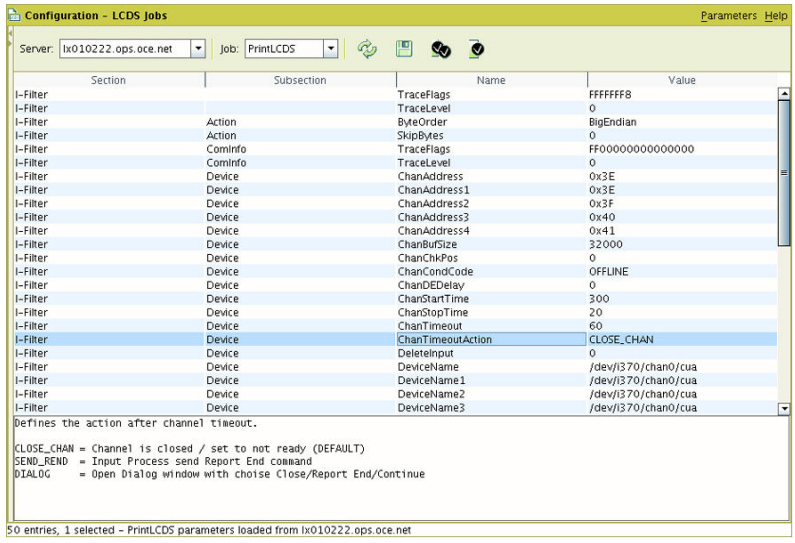
## Introduction

You can use 'LCDS Jobs' to configure all the application-dependent parameters of the JCFs for the LCDS-Module much more easily than with a simple editor (for a detailed description of JCF see the chapter before). Parameters which have to be modified by editing the JCF manually are also described in this chapter.

Open the 'LCDS Jobs' application by clicking ‘Configuration’ and selecting 'LCDS Jobs' in the Océ PRISMAproduction Server tree view.

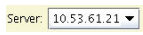
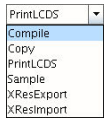
*Note:*
All buttons or commands which are grayed out (dimmed) and are not mouse or key sensitive cannot be activated, either because the user has no right of access or because the function concerned cannot be executed at this point.

## Illustration


Configuration - LCDS Jobs
Parameters Help
Server: lx010222.ops.oce.net
Job: PrintLCDS
Section
Subsection
Name
Value
I-Filter TraceFlags FFFFFFF8
I-Filter TraceLevel 0
I-Filter Action ByteOrder BigEndian
I-Filter Action SkipBytes 0
I-Filter ComInfo TraceFlags FF00000000000000
I-Filter ComInfo TraceLevel 0
I-Filter Device ChanAddress 0x3E
I-Filter Device ChanAddress1 0x3E
I-Filter Device ChanAddress2 0x3F
I-Filter Device ChanAddress3 0x40
I-Filter Device ChanAddress4 0x41
I-Filter Device ChanBufSize 32000
I-Filter Device ChanChkPos 0
I-Filter Device ChanCondCode OFFLINE
I-Filter Device ChanDEDelay 0
I-Filter Device ChanStartTime 300
I-Filter Device ChanStopTime 20
I-Filter Device ChanTimeout 60
I-Filter Device ChanTimeoutAction CLOSE_CHAN
I-Filter Device DeleteInput 0
I-Filter Device DeviceName /dev/i370/chan0/cua
I-Filter Device DeviceName1 /dev/i370/chan0/cua
I-Filter Device DeviceName2 /dev/i370/chan0/cua
I-Filter Device DeviceName3 /dev/i370/chan0/cua
Defines the action after channel timeout.
CLOSE_CHAN = Channel is closed / set to not ready (DEFAULT)
SEND_REND = Input Process send Report End command
DIALOG = Open Dialog window with choise Close/Report End/Continue
50 entries, 1 selected - PrintLCDS parameters loaded from lx010222.ops.oce.net

## The 'LCDS Jobs' Table

The functions of all tool bar icons are also accessible via the 'Parameters' menu.

| Tool Bar Icons and Entries | Description |
|---|---|
| 'Select a server'   | Select a server in the ODS network on which the JCF you want to modify is located. |
| 'Select a job'   | 'LCDS Jobs' allows you to view and change the application parameters for six different jobs (see image on the left). At any given time, the parameters shown are those for the current application selected. |
| 'Apply JCF changes' | Save the current parameter settings for the currently displayed server and JCF. |
| 'Discard JCF changes' | Reloads the parameter settings from the currently selected server and JCF. All modifications performed before are discarded. |
| 'Reset all parameters to default values' | Sets all parameters for the currently displayed server back to their default values. All modifications performed before are discarded. |
| 'Reset selected parameter to default value' | Sets the selected parameter for the currently displayed server back to its default value. All modifications performed for this parameter are discarded. |

## Parameter Table

Double click a value of a parameter which you want to modify. Either a drop down list opens, which allows you to select the desired value, or the value column becomes editable for you to type in a new value (sometimes hex format).
The help text, which is displayed in the lower area of the window as soon as a parameter is selected, explains the function of the parameter and its values.
See also: *'LCDS Parameter Configuration: Description of the JCF Parameters'* on page 387.

# LCDS Parameter Configuration: Description of the JCF Parameters

## Introduction

The following tables describe the JCF parameters for the different LCDS Jobs.
See also: *'LCDS Parameter Configuration: 'LCDS Jobs' Window'* on page 385.

## Compile Parameters

| XDL Compiler Section | |
|---|---|
| CaseMode | Specifies, whether the XDL allows lower case characters in the JSL.<br>STD lower case is not allowed (Default).<br>LOWER lower case is allowed |
| LineMode | Specifies the number of columns per line.<br>STD up to 72 columns (Default).<br>LONG up to 256 columns |
| Mode | For use with the STOCKSET, FEED and STOCKS commands in the OUTPUT statement, as well as the FEED and STOCKS DJDE.<br>XEROX/FanFold: Accepts and ignores all syntactically correct FEED and STOCKS(ET) statements, FEED=AUX and Conditional Processing RAUX and RFEED, but uses input tray 1 (for example: fanfold input media) only.<br>LCDS/CutSheet: Accepts and processes FEED and STOCKS(ET) statement (Default). |
| TraceFlags/<br>Com-Info | Contains the trace flags for better differentiation of the traces in the compile process. Compile specific GCI communication interface trace flags.<br>(Default=FFoooooooooooooo). Parameter is mandatory. |
| TraceLevel/<br>Com-Info | Defines the trace level for the GCI communication interface during the compile application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |

## Copy Parameters

| I-Filter Section | |
|---|---|
| I-Filter_TraceFlags | Contains the trace flags for better differentiation of the traces in the input filter. The trace flags should always be set to FFFFFFF8. Only for data tracing at the highest level (trace level 4) the trace flags must be changed to FFFFFFFF. Warning: data tracing will produce huge data trace files which take up hard disk space!<br>Trace parameters are optional. When they are used, they should be positioned at the beginning of the section.<br>I-Filter specific trace flags (Default=FFFFFFF8) |
| I-Filter_TraceLevel | Defines the trace level for the I-Filter component. The next higher level always includes all lower levels. Parameter is optional.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| I-Filter_DeleteInput | Defines, for the Hard Disk input case, if imported files should be deleted (usually from '/u/prismapro/data/resimport/lcds').<br>0 No Deletion (Default)<br>1 Delete Input File. |
| I-Filter_TraceFlags/ ComInfo | I-Filter specific GCI communication interface trace flags (Default=FF0000000000000).<br>Parameter is mandatory. |
| I-Filter_TraceLevel/ ComInfo | Defines the trace level for the GCI communication interface during the I-Filter part of the copy application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| **Resource Converter (XRC) section** | |

| I-Filter Section | |
|---|---|
| CustomTone | Specifies the Custom color support:<br>■ 0<br>Only Black / Highlight color values are used in the Datas-tream / Resouces (Default)<br>■ 1<br>Custom Color Support on. In data stream color ID's for he requested color are used explicitly, rather than the highlight color "brown". Printer has to be set respectively, using Color Mapping Tables.<br>For Details see "Highlight Color Support". |
| Deletion_mode | Specifies how to deal with the input files after a successful copy/conversion.<br>■ 0<br>Every converted input file (resource) will be copied into a CONVERT-internal library and then deleted from the COPY-internal library. This is the default. In the CON-VERT-internal library all the input-files will be accumulated for a later Convert-processing if desired.<br>■ 1<br>Every converted input file (resource) will be deleted from the COPY-internal library |
| FrmAFPOut | Specifies how XEROX forms are converted in to AFP docu-ments:<br>■ 0<br>Conversion FRM -> Overlay (*:FRM -> o1*) (Default)<br>■ 1<br>Conversion FRM -> Page Segment (*:FRM -> ix*)<br>■ 2<br>Conversion FRM -> Overlay + Page Segment (*:FRM -> o1* + ix*) |

| I-Filter Section | |
|---|---|
| FrmShadeColor | Specifies how colored shadings will be converted referring to the color:<br>■ MIXED<br>Bicolored shading is converted to black or color depending on color saturation. For example if there are more color pixels than black pixels, the whole shading will be completely in highlight color/CustomTone.<br>■ ALL_BLACK<br>All toned pixels, no matter if they are colored or black are converted to black pixels.<br>■ ALL_COLOR<br>All toned pixels, no matter if they are colored or black are converted to colored pixels.<br>■ RASTER ICT<br>■ Bicolor shading is converted into two layers (black and HC/CustomTone). |
| FrmShadeModify | Specifies special processing for shading:<br>■ 0<br>no modification of shades (Default)<br>■ 1<br>close gaps between<br>■ 2<br>boxes with the same shade to avoid thin white lines |
| FrmShadePosition | Specifies the positioning shading:<br>■ 0<br>like FRM. (Default)<br>■ 1<br>absolute from 0/0 and adjust shade box borders |

| I-Filter Section | |
|---|---|
| FrmShadeType | Specifies the type of shading applied:<br>■ 0<br>Xerox-like shades (coarse shades). Shades are taken from FORMS$.FNT (Default)<br>■ 1<br>Special shades (fine shades) designed by OPS<br>■ 6<br>Ink color shades (RASTERICT). For bi-color shadings INK-FONT Shading (representing ink catalogs) will be used as fonts in the MCF structure of the created AFP file. This option is interesting for applications having highlight color and color shadings, which should be printed on HC-printer with good=small registration abilities (like fpr example VP92..). If this option is used, the respective Fonts (named [T1\|Co\|Xo][II\|IB\|IC]<hex-value-up-to-64><hex-value-up-to-64> , for example “T1B2A13”) are automatically loaded in the respective catalog. The hex values represent the color and black percentages. IB Fonts are used in the ALL_BLACK case, IC fonts are used in the ALL_COLOR case and II fonts are used for RASTERICT case. For example font II0853 represents a font used for a mixed shading of approximately 8% color and 83% black. You can also use these fonts manually . To use this option, please uncompress (gunzip) and extract (tar xvf) the fonts collected in file '/u/prismapro/data/cat/STANDARD/ink_shading_fonts.tgz' in the rds subcat of this directory STANDARD and copy the used fonts or all fonts in the rds subcat of the actually used catalog. |
| Offset ScndRot | Specifies the maximum number of fonts for each rotation:<br>■ OFFS_SECND_64:<br>64 Fonts for each rotation (for exmaple for printing on Xerox "IPDS").<br>■ OFFS_SECND_128:<br>128 Fonts for each rotation (standard IPDS). (Default) |

| I-Filter Section | |
|---|---|
| Trc_level/XRC | Defines the trace level for the convert component. Permitted values are 0, 1, 2, 3, 4. The next higher level always includes all lower levels. Parameter is optional.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| XRC_TraceFlags/ ComInfo | Convert specific GCI communication interface trace flags (Default=FF0000000000000). Parameter is mandatory. |
| XRC_TraceLevel/ ComInfo | Defines the trace level for the GCI communication interface during the convert application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |

## PrintLCDS Parameters

| I-Filter Traces Section | |
|---|---|
| I-Filter_TraceFlags | (see 'Copy' parameters) |
| I-Filter_TraceLevel | (see 'Copy' parameters) |
| I-Filter_Trace-Flags/ Com-Info | (see 'Copy' parameters) |
| I-Filter_TraceLev-el/ Com-Info | (see 'Copy' parameters) |
| **I-Filter Action Section** (these two parameters are only processed if you print from hard disk and if Host=BARRPC) | |
| SkipBytes | To change the length of introducer change the 'SkipBytes' in the 'Harddisc' part of the PrintLCDS.JCF (Default=0) |
| ByteOrder | The byte order of RECLEN can be changed here. (Default=BigEndian; may be LittleEndian) |
| **I-Filter Device Section** | |

| I-Filter Traces Section | |
|---|---|
| ChanAddress | Defines the channel address under which the printer emulator is addressed by the host. Online Channel address in oxFF Hex Format (Default=0x3E) |
| ChanAddress1/2/3/4 | Defines the channel address for the channel1 selection in PJM LCDS $XDATA_DEVICE. Analogously ChanAddress2 to ChanAddress4 address channel2 to channel4 for parameterisation of up to five different input channels for possible parallel input |
| DeviceName | Online channel device. (Default= /dev/i370/chano/cua) |
| ChanStartTime | Defines the time (in seconds) after which the input filter stops waiting for the first data block in a session. Online Channel start time must be >= 20 (Default=300) |
| ChanTimeout | Defines the time (in seconds) after which the input filter stops waiting for data from the channel after the last data arrived. Online Channel time-out must be >= 20<br>0=No time out (Default=60) |
| ChanChkPos | Defines the byte position for the length byte and enables /370 data checking if set to a value > (Default=0) |
| ChanBufSize | Specifies the channel buffer length. This can be used to slow down I-Filter in connection with Online_Channel_device_delay. The delay is executed after a buffer of the specified size. Smaller buffer mean more frequent delays. Value in bytes, Default=32000 |
| ChanDEDelay | This parameter defines the delay in milliseconds between the end of I-Filter processing a received ccw and the device end set by the I-Filter. Setting a delay time > 0 may be useful, when the channel operates in daisy chain mode and other network traffic is running parallel. |
| ChanCondCode | Defines the status of the channel after channel close command.<br>ONLINE= Channel goes not ready.<br>OFFLINE= Channel goes offline (Default) |

| I-Filter Traces Section | |
|---|---|
| ChanTimeoutAction | Defines what happens after ChanTimeout:<br>SEND_REND: Always sent end record: close report<br>CLOSE_CHAN (Default): Always close channel<br>DIALOG: Opens a dialog box:<br>■ 'Finish current report'<br>■ 'YES' (like SEND_REND)<br>■ 'NO'<br>■ 'Close Channel' (like CLOSE_CHAN) |
| DeleteInput | Defines whether the input file is to be deleted after processing.<br>0= input file will not be deleted (Default)<br>1= input file will be deleted |
| DeviceName1/2/3/4 | Defines the channel device for the channel1 selection in PJM LCDS $XDATA_DEVICE. Analogously DeviceName2 to DeviceName4 address channel2 to channel4 for parameterisation of up to five different input channels for possible parallel input |
| **X-Filter Section** | |
| X-Filter section | Specifies whether the xrx input files should be deleted after printing 0 Deletion mode for xrx input file off 1 Deletion mode on (Default) |
| AlignScan<br>AlignDot | Specifies a basic shift of the print-data/images on a page. This basic shift modifies the SHIFT-parameter in JSL.<br>AlignScan defines the shift in the direction of the long side of a page, AlignDot defines the shift perpendicular to the long side of a page, both for pages where the long side £ 14"<br>AlignScan defines the shift in the direction of the short side of a page, AlignDot defines the shift perpendicular to the short side of a page, both for pages where the long side > 14"<br><shift-value>::= defines a shift in units of 1/300 inch |
| BFormNumOff | Specifies, if page numbers due to DJDE/JDE NUMBER should be printed on BFORM pages or not.<br>0 Printed (Default=Normal Xerox Handling)<br>1 Switch Off printing. |
| CustomTone | (see 'Copy Parameters') |
| FrmAFPOut | (see 'Copy Parameters'. The parameters in this section are valid for Xerox inline resources via DJDE FILE) |
| FrmShadeColor | (see 'Copy Parameters') |

| I-Filter Traces Section | |
|---|---|
| FrmShadeModify | (see 'Copy Parameters') |
| FrmShadeType | (see 'Copy Parameters') |
| InfoPagesFix | Defines which parameter is used to enable or disable the printing of the SPS trailer page containing the account information. There are three parameters which may be used to switch SPS header and trailer pages on or off:<br>■ 1<br>The PJM parameter 'Print Header/Trailer'<br>■ 2<br>The PrintLCDS.JCF parameter Infopages=YES/NO, if LCDS print window is used<br>■ 3<br>The JSL ACCT USER=NONE/BIN parameter (in XEROX case used to switch XEROX accounting page on or off, in LCDS it may be used to switch SPS header/trailer pages on or off, if used in start JDL/JDE)<br>■ NO:<br>SPS trailer pages with accounting information are printed as stated in JSL ACCT USER command (DEFAULT) ? Parameter 3.<br>■ YES:<br>SPS trailer pages with accounting information are printed as stated in JCF or PJM parameter ? Parameters 1 and 2. |
| JobnameCfg (JOB-NAME) | Defines, which information is to be transferred into the field 'JOBNAME' in the spool window. The format is: {type, offset, length;}. Default=1,0,6;2,0,6;3,0,10;4,0,16;<br>(for details see chapter 'Specific Notes') |
| OffsetSecndRod | (see 'Copy Parameters') |
| OtextOff | 0 default = Normal default behavior.<br>1 WAIT Option for OTEXT will be ignored<br>2 OTEXT will be completely ignored. |

| I-Filter Traces Section | |
|---|---|
| SaveXRX | ■ 0<br>= default = handling-like-v3.02/4 = Downloaded resources (DJDE FILE) are not stored in original xerox format.<br>■ 1<br>= new = Downloaded resources (DJDE FILE) are actually stored in original xerox format in subcat's fnt_conv, img_conv, frm_conv, lgo_conv, to be – eventually – reconverted with the convert option of the LCDS resource window. |
| XFilter_TraceLevel | Defines the trace level for the XFilter component. The next higher level always includes all lower levels. Parameter is optional.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| XFilter_TraceLevel/ Com-Info | Defines the trace level for the GCI communication interface during the XFilter part of the print application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| XFilter_TraceFlags/ Com-Info | XFilter specific GCI communication interface trace flags. (Default=FF0000000000000).<br>Parameter is mandatory. |
| **SpoolJob Section** | |
| SpoolJob_TraceFlags/ Com-Info | StartSPS specific GCI communication interface trace flags. (Default=FF0000000000000).<br>Parameter is mandatory. |

| I-Filter Traces Section | |
|---|---|
| SpoolJob_TraceLevel/ ComInfo | Defines the trace level for the GCI communication interface during the StartSPS part of the print application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| PrintWhileSpooling | Enables/disables print while spooling<br>0 Disable, jobs get status 'prepare', status 'ready to print' after conversion is ready.<br>1 Enable (Default). |
| UpdFileDelete | Specifies the time SpoolJob deletes the accounting update files.<br>0 Never<br>1 After every read access (Default).<br>2 After the last read access. |
| WaitTime | Sleep time in seconds for SpoolJob, influences performance (Default = 5).<br>Please use a smaller value, in case the majority of the jobs are small. |
| Data check (Pdschck) | Specifies data checks (overwrites the same printer config value)<br>1 Printer ignores printing outside of the printable area (Default).<br>0 All data checks are reported by the printer.<br>2 Data check "printable characters" switched off.<br>3 All datachecks switched off. Will increase TCP/IP performance during printing /data transfer to printer. |

## Parameters to be changed manually by editing the PrintLCDS.JCF

| | |
|---|---|
| FCB Ignore | Indicates whether the online print data will be checked against the FCB (0) or not (1). The default is 0. |
| Infopages | Indicates whether info pages should be printed (YES or NO are valid). |

## Sample Parameters

| **Sample Section** | |
|---|---|
| Stamp | Defines whether the data/time/host stamps are to be printed.<br>YES Print with stamp (Default).<br>NO Print without stamp. |
| TraceLevel | Defines the trace level for the sample component. Permitted values are 0, 1, 2, 3, 4. The next higher level always includes all lower levels. Parameter is optional.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| TraceFlags/ComInfo | Sample specific GCI communication interface trace flags (Default=FFoooooooooooooo). Parameter is mandatory. |
| TraceLevel/ComInfo | Defines the trace level for the GCI communication interface during the sample application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| **Spooljob Section** | |
| SpoolJob_TraceFlags/ Com-Info | StartSPS specific GCI communication interface trace flags. (Default=FFoooooooooooooo). Parameter is mandatory. |
| SpoolJob_TraceLevel/ Com-Info | Defines the trace level for the GCI communication interface during the StartSPS part of the sample application. The next higher level always includes all lower levels. Parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |

## XResExport parameters

| | |
|---|---|
| **I-Filter Section** | |
| TraceFlags | Contains the trace flags for better differentiation of the traces in the input filter. The trace flags should always be set to FFFFFFF8. Only for data tracing at the highest level (trace level 4) the trace flags must be changed to FFFFFFFF. Warning: data tracing will produce huge data trace files which take up hard disk space!<br>Trace parameters are optional. When they are used, they should be positioned at the beginning of the section.<br>I-Filter specific trace flags (Default= FFFFFFF8). |
| TraceLevel | Defines the trace level for the I-Filter component. The next higher level always includes all lower levels. The parameter is optional.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| **ComInfo Subsection** | |
| TraceFlags | I-Filter specific GCI communication interface trace flags (Default=FFoooooooooooooo). Parameter is mandatory. |
| TraceLevel | Defines the trace level for the GCI communication interface during the resource export. The next higher level always includes all lower levels. The parameter is mandatory.<br>0 no trace information (Default)<br>1 system trace information<br>2 minimal trace information<br>3 medium trace information<br>4 maximum trace information |
| **SubcatInfo Subsection** | |
| CMD | Switches the file type CMD (Command file) (ASCII) on or off.<br>0 Off: this file type will not be exported to the Xerox format output device.<br>1 On: this file type will be exported to the Xerox format output device. (Default) |

| | |
|---|---|
| CME | Copy modification entry<br>binary<br>Default 1 |
| DAT | System data file<br>binary<br>Default 0 |
| FNT | Font file<br>binary<br>Default 1 |
| FRM | Form object file<br>binary<br>Default 1 |
| FSL | Form source language file<br>ASCII<br>Default 1 |
| ICT | Ink catalog<br>binary<br>Default 1 |
| IDR | Ink directory<br>binary<br>Default 1 |
| IMG | Image file<br>binary<br>Default 1 |
| IPM | Interpress font mapping file<br>binary<br>Default 0 |
| JDL | Job descriptor object file<br>binary<br>Default 1 |
| JSL | Job source language file<br>ASCII<br>Default 1 |
| LGO | Logo file<br>binary<br>Default 1 |

| | |
|---|---|
| LIB | Utility file<br>binary<br>Default 1 |
| LOG | System integrity log file<br>binary<br>Default 0 |
| MSC | Temporary user file<br>binary<br>Default 1 |
| OSD | OSDS diagnostic file<br>binary<br>Default 0 |
| PCH | System patch file<br>binary<br>Default 0 |
| PDE | Page descriptor entry file<br>binary<br>Default 1 |
| SAF | SAFES diagnostic file<br>binary<br>Default 0 |
| STK | Stockset file<br>binary<br>Default 1 |
| SYS | System control file<br>binary<br>Default 0 |
| TMP | Temporary user file<br>binary<br>Default 1 |
| TSK | System task image file<br>binary<br>Default 0 |
| TST | RTEXT object file<br>ASCII<br>Default 1 |

> *Note:*
> These parameters are optional. Other file types may be included into XresExport.JCF.

**XResImport parameters** are identical to XResExport parameters.

# LCDS Parameter Configuration: Online Configuration

## Introduction

For online connection to the host, some customer-specific changes have to be made after the installation. All changes are made in the file:
'/u/prismapro/lib/uimng/jcf/PrintLCDS.JCF'
The following settings in the 'online' section of this file should be checked and corrected if required:

## Illustration

```
Begin-If "%INPUT_DEV%"=="ONLINE"
.       Begin-Device
.       .       ChanAddress,        0x3E
.       .       ChanAddress1,       0x3E
.       .       ChanAddress2,       0x3F
.       .       ChanAddress3,       0x40
.       .       ChanAddress4,       0x41
.       .       ChanBandID,         0xF9F2F0F2
.       .       ChanBufSize,        32000
.       .       ChanChkPos,         0
.       .       ChanCondCode,       OFFLINE
.       .       ChanDEDelay,        0
.       .       ChanEmulation,      3211
.       .       ChanStartTime,      300
.       .       ChanTimeout,        60
.       .       ChanTimeoutAction,          CLOSE_CHAN
.       .       ChanTransMode,      HIGHSPEED
.       .       DeviceName,         /dev/i370/chan0/cua
.       .       DeviceName1,        /dev/i370/chan0/cua
.       .       DeviceName2,        /dev/i370/chan0/cua
.       .       DeviceName3,        /dev/i370/chan0/cua
.       .       DeviceName4,        /dev/i370/chan0/cua
.       .       DeviceType,         /370
.       .       FCBIgnore,          0
.       0: check data against FCB, 1: do not check
.       End-Device
End-If
```

## Online Configuration Parameters

| ChanAddress | An address between 0 and 255 (= decimal) in Hex (0x00 to 0xFF). The Host will address the PRISMAproduction server with this value. |
|---|---|
| ChanCondCode | Corresponds with ChanTimeoutAction.<br>ONLINE: channel will not be closed, host receives the message 'Not Ready'.<br>OFFLINE: Channel is closed. CC=3 on the host system. |
| ChanStartTime | Zero (= run infinite) |
| ChanTimeout | Zero (= no time-out after stopping to receive data) |
| ChanChkPos | Defines the byte position for the length byte and enables /370 data checking if set to a value > (Default=0) |

| ChanAddress | An address between 0 and 255 (= decimal) in Hex (0x00 to 0xFF). The Host will address the PRISMAproduction server with this value. |
|---|---|
| ChanBufSize | Specifies the channel buffer length. This can be used to slow down I-Filter in connection with Online_Channel_device_delay (see ChanDEDelay).<br>The delay is executed after a buffer of the specified size. Smaller buffer mean more frequent delays.<br>Value in bytes, Default=32000 |
| ChanTimeoutAction | Defines what happens after ChanTimeout:<br>SEND_REND: Always sent end record: close report<br>CLOSE_CHAN (Default): Always close channel<br>DIALOG (Default, if parameter not present): Opens a dialog box:<br>■ 'Finish current report'<br>■ 'YES' (like SEND_REND)<br>■ 'NO'<br>■ 'Close Channel' (like CLOSE_CHAN) |
| ChanDEDelay | Delay time in milliseconds between the last channel end of a full buffer (see ChanBufSize) processing a received CCW and the DeviceEnd set by ifilter. Setting the delay time >0 may be useful when the channel is opened in daisy-chain mode and other network traffic is running parallel on the channel. |
| FCB Ignore | Indicates whether the online print data will be checked against the FCB (0) or not (1). The default is 0. If the customer uses "skip to channel" and this channel is not definied in FCB, the ifilter generates an errormessage **"30000063 ifilter Data check for input from /370-channel."** and interrupts the printout.<br>It may be useful to set the FCB Ignore to (1) to force a printout. In this case you have to be aware that the printed data are incorrect. Therefore you have to adjust the print data and FCB (i.e. channels set in the print data must also be defined in the FCB) for correct printout." |

# LCDS Parameter Configuration: Special Functions and User Scripts

## Introduction

This chapter describes some special user settings and user scripts for the LCDS-Module.

## Changing the Default Paper Size

You can start the program ‘setpapersize’ in a Linux command line window after logging in as root:
'setdefpaper': shows the default paper size on the server.
'setdefpaper a4': sets default paper size to A4.

The default paper size can be changed to legal, letter, ledger, B4 or A3. The default paper size applies to all customer catalogs.
To initialize the standard formats, PCC and code tables you can start the program 'initlcds' in a UNIX window after logging in as root:
'initlcds' initializes standards in all catalogs on the server.

The standards apply to all customer catalogs, if no customer catalog is given. The catalog parameter restricts this setting to one catalog:
'initlcds' DEFAULT sets standards in the DEFAULT catalog only.

For compatibility reasons the script 'setpapersize' is left as a combination of 'setdefpaper' and 'initlcds' with the same parameters:
setpapersize <paper size> [<catalog>].

This script is started with every installation of the LCDS module.

## Suppressing Information Pages

If you are printing jobs with numerous reports, it is possible to suppress the printing of Océ PRISMAproduction Server information (header, separator and trailer) pages in order to save paper. Message pages are not suppressible. Every new report starts on a new sheet (You may get up to three blank pages if you print duplex and two-up). To suppress the printing of information pages, deactivate the ‘Print Header/Trailerpage’ button in the PJM.

## Verifying the Version Numbers

A script 'Icdsver' is included in the package. This gives the version numbers of the crucial modules (for example xdl, xfilter, XRC...). This service tool can be started from the command line.
A script 'prismaver' is included on the CD under tools_linux. This gives the version numbers of all rpm packages and selected modules like with the release notes. This service tool can be started from the command line.

## Implementation of Bicolor Shadings in LCDS

The following table defines the determination of the colors of a shading (up to version 3.04 the color was defined depending on the ratio of color/black: if there was more color than black, only color was printed and the other way round):

Black=0, Color=0 -> Black
Black=0, Color>0 -> Color
Black>0, Color=0 -> Black
Black>0, Color>0 ->
Bicolor shadings are printed on top of each other (Black and Color). To print the two layers, the XRC converter switch has to be set to RASTERICT (see **Copy Parameters** in *'LCDS Parameter Configuration: Description of the JCF Parameters'* on page 387).

## Highlight Color Support

Highlight color support is based on the alternate color concept. In this case "BLACK" and "K100" (and related gray shadings like K32 within the XRC) are converted into AFP Black color = 0x08, all other colors into AFP Brown = Alternate Color = 0x10. This option is used for the **CustomTone=0** switches for PrintLCDS.JCF (Data and inline resources via xfilter/rfilter) and Copy.JCF (external resources via XRC).

For the **CustomTone=1**, the main idea of the documentation still applies. Only the Xerox color names (see table below) are converted in respective AFP OCA Colors names, all other colors (except BLACK/K100 = AFP Black) into AFP Yellow = 0x06. Yellow was chosen to be able, to distinguish this from the normal HC case.

Using Color mapping tables (CMT), the color names/hex codes can be mapped to certain highlight color stations numbers, defined on/by the printer or gray values, etc. Using CMT's all CustomTone toner stations can be addressed. These CMT tables may be activated on the physical printer itself (imported via Floppy or USB-stick), configured in the logical SPS printer of PRISMAproduction (PDS settings Parameter PDSCOLMAP) or configured via PJM using the SPS printer pds parameter PDSCOLMAP as key and <CMT-Name> as value in the Job Attributes "Custom Setting" Tab). The CMT <CMT-Name> must be present in one of the directories of the Resource Library path, defined

for the respective Job. For LCDS, this may be the directories for the printer resources, system resource or the job resource.

| XEROX Names | AFP Names (OCA) | AFP Hex Code |
|---|---|---|
| RED | COLOR_RED | 0x0002 |
| GREEN | COLOR_GREEN | 0x0004 |
| BLUE | COLOR_BLUE | 0x0001 |
| CYAN | COLOR_TURQCYAN | 0x0005 |
| CARDINAL | COLOR_PURPLE | 0x000B |
| MAGENTA | COLOR_PINK | 0x0003 |
| ROYAL | COLOR_DARKBLUE | 0x0009 |
| RUBY | COLOR_ORANGE | 0x000A |
| VIOLET | COLOR_DARKTURQ | 0x000D |

## Jobname Settings

The contents under 'JOBNAME' can be configured in many ways. This value can be displayed in the Spool window. The maximum length is 64 bytes. The value is part of the accounting and will be printed on the accounting trailer page.

### Configuration in PrintLCDS.JCF

There is an Xfilter options parameter in the job control file PrintLCDS.JCF which serves for the configuration of the value 'JOBNAME'. The parameter name is 'JobnameCfg' and its value is a list of source information generating the value in the 'JOBNAME' column.
The list has the following format: '{type,offset,length;}...' Negative numbers and blanks are not permitted. You can type a maximum of 11 triplets: 'type,offset,length;. 'Further triplets will be ignored. The last sign of a triplet has to be a semicolon.
The types ('type') of the sources are coded as numbers (see table below). Types may appear repeatedly in the list for example to display several parts of HRPTNA in 'JOBNAME'. 'offset' marks the beginning of the information in the respective source information which should be transferred to 'JOBNAME'. offset = 0 represents the beginning of the source

information. If 'offset' is greater as or equals the length of the source field, nothing will be transferred to 'JOBNAME'.
'length' represents the length of the information to be transferred. If 'length' + 'offset' are higher than the length of the source field, the information up to the end of the source field will be transferred.
It is not possible to transfer more than 64 byte to the 'JOBNAME' field, the rest of the information will be cut.
The single values in 'JOBNAME' are separated by one blank each.
Trailing blanks in the resulting string are truncated, so that no "..." is to be seen in the Jobname column of the All Jobs window.

| type | Description | Max length |
|---|---|---|
| 0 | No source, no values will be transferred. | -- |
| 1 | JDE-name | 6 |
| 2 | JDL-name | 6 |
| 3 | HRPTNA (BANNER or RSTACK HRPTNA) | 16 |
| 4 | HJOBNO (BANNER) | 6 |
| 5 | DEPT (ACCT) | 31 |
| 6 | ACCTINFO (RSTACK) | 64 |
| 7 | Tape file name or hard disk file name without path | 65 (64) |
| 8 | Complete hard disk file name | 255 (64) |
| 9 | PJM Job ID | 6 |
| 10 | PJM job name | 64 |
| 11 | Start-JDE | 6 |
| 12 | Start-JDL | 6 |
| 13 | Report number beginning with 0000, displayed with at least 4 digits | 10 |
| 14 | VSN. "VSN" represents the volume serial number of a tape VOL record ( 6 bytes from byte no. 5-10 ). This value does obviously only make sense for tape/cartridge jobs with VOL record as volume definition of a tape. | 6 |

**Example 1**:

Begin-Xfilter
...
Begin-Options
...
JobnameCfg 1,0,6;2,0,6;3,4,20;6,0,66;
...
End-Options
...
End-Xfilter

These settings transfer the following values to the ‘JOBNAME’ field:

JDE name from the beginning with length 6,
one blank as separator,
JDL name from the beginning with length 6,
one blank as separator,
the contents of HRPTNA form position 5 with length 12 (end of HRPTNA),
one blank as separator,
the contents of ACCTINFO from the beginning with length 37 (end of JOBNAME=64 Byte),
for example the result will be, if HRPTNA has the value 'HOST-REPORT-NAME' and ACCTINFO the value for example 'ACCTIN-FO90102345678901234576890123456789012345678901234567890123456789012345678901234': DFLT___DFAULT_-REPORT-NAME_ACCTIN-FO9010234567890123457689012345678901234567 (In this example blanks are represented by underscores).

(In this example blanks are represented by underscores).

**Example 2**

'JOBNAME 1,0,6;3,4,8;0,0,32;2,0,6;'

These settings transfer the following values to the ‘JOBNAME’ field:

JDE name from the beginning with length 6,
one blank as separator,
the contents of HRPTNA form position 5 with length 8.
Nothing else will be transferred because the type 0 ends the list
for example the result will be,
if HRPTNA has the value 'HOST REPORT NAME':
DFLT____REPORT_

(In this example blanks are represented by underscores, the trailing blank is truncated).

## Multiple Process Chains

The use of parallel LCDS Process chains is supported in V3.10. Two typical use cases may be given here to explain the usage and advantages.

- Use Océ IPDS twin fanfold system print-while-spooling both in the twin configuration (one process chain supported in V3.0X) and 2 parallel process chains in a "two-single" configuration.
- Process (Copy, Compile, and Print (sequentially)) production data on a production catalog.
  Parallel a new test catalog may be created and resources may be copied and converted, JSLs may be edited and compiled and test print done. This test actions may be performed parallel to print process on production catalog without interfering with each other.

For details concerning the use of this function for multiple process chains, please see also the following chapters:

- *'LCDS Parameter Configuration: Description of the JCF Parameters'* on page 387 (for example Keyword DeviceName1/2/3).
- "Server Files" (Device) in the Océ PRISMAproduction Server User's Guides.

## User Script "Drain_Channel"

Usecase : If the LCDS /370 input via channel has an infinite channel time out, a stop of the process chain job in the spool/ods queue may result in unwanted data loss. To stop all infinity channels for example during an operator change due to shift changes or at the end of the day, a userscript “Drain_channel” is provided. Executing this script will change the handling of all running ifilters and these processes will now use the finite channel time out value defined with the parameter “ChannelStopTime”. The recommended “ChannelTimeoutAction” should be “Close_channel”.

The user script is provided for the user “service”. If it should be available for other users, service personal can copy this script in the general or user specific folder.

## User Script „reset_LCDS“

In case of LCDS procedures (XRC, xdl, ifilter, xfilter) being in a hang situation of running in an “endless loop”, these processes may be stopped/killed via the delete option in the ODS job queue or the cancel button of the LCDS resource window. In case this is not possible for some reason, a user script is provided in order to stop the individual executables or delete internal files (for example lock files), which may be responsible for this hang situation. If you call this script (user scripts -> service), a Linux consol window is opened,

displaying a list of the actual running processes (using unix “ps” process status command and displaying the unix process ID) and files. With “y”, you have the possibility to kill these processes (for each type of executable individually) / delete these files. This script – like other reset commands as well – should be called with special care.

## LCDS Online Jobs via TCP-IP Download

PRISMAproduction LCDS module is compatible with a Xerox printer. In the Online case, the Xerox default value and use case (for example via MVS Jes) is the PCC-TYPE=IBM3211. It is strongly recommended to use IBM3211 (machine code) PCC’s as input for the LCDS converter module.

For the use case of download via TCP/IP (for example PRISMArouter), there may be MVS files with ANSI PCC’s (or no PCC’s). In order to import these files (for example also several MVS-Steps, which result in several file sections in the Océ PRISMAproduction Server download module) in a “Jes/370DocuPrint”-like manner, the Download import script “.LCDS_DL_input” is provided. This example script should help to simulate the “Jes/370” process. It is located in '/u/prismapro/cfg/jobinput/bin'.

It should be copied to a customer version and customized using/changing the parameters, to be found in the head of the script. Here the functionality is also defined. The script uses functions of the LCDS driver Passthrough package. After an update installation, it is recommended to compare the customized script with the newly released example, provided in a new release (enhancements).

Each parameter serves a certain functionality:

**Merge**: Merge several files section to one file section to emulate the constant data stream of a /370 channel, with no file boundary in between MVS steps. In normal use cases, it is recommended to use this function.
**PCC**: Normalize the PCC’s ( IBM3211, ANSI, no PCC) to IBM3211, using the PCC type information, provided by the MVS system and passed via router and download input. In normal use cases, it is recommended to use this function.
**Header / Trailer / FCB**: This functionality includes header, trailer and FCB’s. The FCB’s must be present in the System ( like LCDS driver ) for example using the FCB configuration. The header / trailer uses the same LCDS driver templates in '/u/prismapro/cfg/banner/[start|end]'.txt.

## LCDS-Collect Utility

The LCDS collect tool may be called via ’LCDS’ -> ’collect’ from the main Océ PRISMAproduction Server menu. It can be used for resource handling and error handling is supplied. It is available for the user ”service”.

In case of an error, the error should be reproduced and the service department must be provided with the necessary resources and material. In order to get the most important material, the collect tool may be started and run parallel to a Print Job, which has this error. It collects parameter files and all resources needed to reproduce the print in the headquarter for analyzing purpose. The result is a compressed file '/u/prismapro/collect.tgz'. This file may be sent to the service department. For further questions contact the service department as well.

Choose the Collect tool and start the collection with option ”c” and follow the listed procedure:

- Choose “b” to begin.
- Start one or more applications in only one customer catalog.
- Wait for end of print including SPS (dummy printer is possible).
  **Note**: It is important that you print the applications because otherwise not enough information will be ‘collected’.
- Stop collect tool with “e”, choose the catalog to collect and store the final file named /u/spool/collect.tgz and press ’Enter’ to exit.

In any case original XEROX resources, print files and printouts should be supplied as well.

# 'Paper'

## 'Paper' Configuration Tool

### Introduction

You can use this dialog to define paper types which are available throughout the whole system. You need paper types:

- for the use in DPconnect,
- as input parameters for conversion. Most of the default paper types are already predefined in the 'Standard Paper' table. They are also offered in the 'Convert' dialog in the PJM. For the conversion only the size of the paper is relevant,
- to describe the contents of the input trays. You can use the 'User defined Paper' table to define any paper with specific attributes.

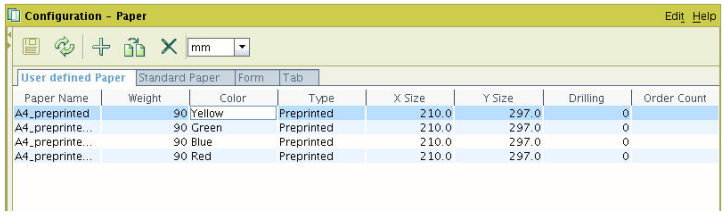
Use the 'Form' table to define forms which can be assigned to a job under the PJM dialog 'Job Attributes' -> 'Print'. The form names also appear in the job lists.

The 'Tab' table displays all available tabsets together with their description. These tabs are available in the 'Tab Printing' dialog of the PJM (POD only). You have to select the tabset which corresponds to the tabset inserted into the printer.

With the tabs 'Standard Paper' and 'User defined Paper' you can chose between the units 'mm' and 'inch'

You can switch between four tabs to show or modify the different tables:

## Illustration




## Description of the tabs:

| Tab | Description |
|---|---|
| 'User defined Paper' | Select this entry to set up user defined medias and to specify various media attributes (see table below).<br>User defined papers can be assigned to printer input trays using the 'Media Settings' dialog in the 'Printer Pool' application |
| 'Standard Paper' | Paper types which are most commonly used, are already predefined and are shown in the table, if you select this entry. These papers are only defined by size.<br>Standard papers can be assigned to printer input trays using the 'Media Settings' dialog in the 'Printer Pool' application (see chapter "Printer Pool" -> "Tool Bar and Menu Functions" in the Océ PRISMAproduction Server User's Guides). |
| 'Form' | Select this entry to define forms, which are assigned to a job via the PJM 'Job Attributes' -> 'Print' dialog. |
| 'Tab' | All available tabs are described in this table. These tabs are provided fpr tab printing in the PJM. You have to select the type, which has the same number, size and sorting as the tabs inserted. |

If you select 'User defined Paper' you can define the following parameters for each paper:

| Column | Description |
|---|---|
| 'Paper Name' | Freeform name to identify the paper. Choose some standard names from a list box if you click into the name field. Maximum length: 40 characters. |
| 'Weight' | Paper weight. Integer values from 40g/m² to 200g/m². |

| Column | Description |
|---|---|
| 'Color' | Any color of the paper. Some colors are offered in a list box. 'Transparent' switches 'Type' to transparent film. Max. length of the field: 40 characters.<br>For every color in the combo box a defined hex code will be inserted in the data stream. For other colors, which you insert manually, a special hex code for 'Custom Color' is inserted. Additionally you can use so called color prefixes: clear, light or dark, where clear can be combined with light or dark.<br>**Example**: Possible combinations of the color red: red, clear red, light red, dark red, clear light red, clear dark red. |
| 'Type' | 'Standard'<br>'Transparentfilm'<br>'Precuttabulator'<br>'Preprinted' |
| 'X Size' | Width of the paper in mm or inch. |
| 'Y Size' | Height of the paper in mm or inch. |
| 'Order Count' | Quantity of proposition of sorted printed sheets, between min. 0 and max. 100. |
| 'Drilling' | In case of drilled paper insert max. 4 holes. DPconnect needs the setting 'Drilling=3'. |

If you select 'Form' you can define the following parameters for each form:

| Column | Description |
|---|---|
| 'Form Name' | Freeform name, max. 8 characters. |
| 'Form Description' | Description of the form, max. 255 characters. |

# 'Ticket Rules'

## 'TicketRules': Introduction

### Introduction

This feature offers a wide range of functions to cover almost any possible request for adapting jobs to the customer environment by changing parameters inside the job ticket. Generally 'TicketRules' manipulate parameters of job tickets, which have been created automatically and therefore need some adjustments. These jobs are submitted to the Océ PRISMAproduction Server system via the input modules Download, LP or HotDirectory. Consequently the ticket rules have to be applied to the jobs in the configuration of the input queues.

Ticket rules can also be applied to mirrored jobs. This is sometimes important to modify the tickets of mirrored jobs so that these jobs can be submitted on the mirror server (which has a different configuration as the original server).

To avoid undesired changes of a ticket, a rule must be explicitly requested for a job. Only one rule can be requested for a job. To execute more rules on one job, the rules have to be defined as sub-rules and the sub-rules have to be actions of another rule ("super-rule"). This rule can then be requested.

If a job is submitted via PJM, then the PJM server merges the required default job ticket and the Océ custom ticket to a new ticket and calls the execution function in the Ticket Rules server with a reference to the job ticket. The requested rule is applied to the ticket, the control is given back to the PJM and the job is submitted with the changed ticket parameters.

### Definitions

The following definitions are prerequsite to understand the purpose and function of the Océ PRISMAproduction Server 'TicketRules'

**Job Ticket - Definition**

The job ticket contains the job parameters. The list of parameters is divided into named sections. The section **[files]** can occur multiple times, the other sections are unique. Inside a section unique names for each parameter exist as so called **keys**. For each key a specific value can be assigned.
**Example**:
In the section **[files]** a key **File_Copies** exists. The assigned value is an integer value defining the number of copies of the file that shall be printed.

**'TicketRules' - Definition**
With the 'TicketRules' application a sequence of actions depending on specific conditions of the ticket of incoming jobs can be defined. The definition of this sequence is similar to a program definition, like a shell script. The sequence of actions form a rule. On how to define rules see *"TicketRules': Definition of Rules'* on page 423.

**Condition, Variable and Value - Definition**

A **condition** or **variable** checks the actual value of a ticket parameter at the time it is executed. This can be a value modified before by another action of 'Ticket Rules' execution. This behavior is similar to the behavior of a script execution.

A **condition** compares the value of a key against a defined value via operators like 'equal', 'greater', 'contains', etc. If the condition is true, the underlying actions will be performed. Instead of a "reverse" condition also an "else" can be used.

A **value** used in the 'Ticket Rules' can be a constant value or a variable which depends on other values. The definition of a variable is done globally and is evaluated at the time the variable is used in a rule. Each variable must have a unique name. The variables are referred by this name.

## General Workflow

1. Definition of the ticket rules in the 'Configuration' -> 'TicketRules' application (see below)
2. Configuration of the input modules. Here a configured ticket rule can be applied to the jobs, which enter the system via an input channel.
3. Configuration for mirror jobs: a specific ticket rule can be applied in the 'System Configuration' or in the PJM -> Menu 'Job' -> 'Transfer Mode'. Apart from 'Default', the PJM setting always overrides the setting in the 'System Configuration'.

# 'TicketRules': Main Window

## Introduction

The 'TicketRules' application window is divided into two parts: The upper part lists the respective elements which can be used in the rules. The lower part contains a detailed definition dialog where you can define the properties of rules, variables and value tables. In the upper part the 'TicketRules' main window provides four different tabs:

- **Rule List**
  Displays the rule list which you use to add/delete, activate/deactivate/change to SubRule and to edit rules.
  The entries in the colums 'Activation' (= the rule is active or inactive or is a SubRule), 'Name' (= unique name of the rule) and 'Description' (= user defined short description of the rule) are defined by the user in the Add/Edit rule dialog. To edit a rule (modify name and description), select the rule and click the entry in all columns except the 'Activation' column with the right mouse button or click the 'Edit' icon ( ) in the tool bar. The 'Activation' column can be used to activate or deactivate a rule or to change a rule to a SubRule, if this is allowed (see below).
  The lower part of the window repesents in this case the **Rule Definition Window**, where you combine the different parts to create a well formed rule.
  See: *"TicketRules': Definition of Rules'* on page 423
- **Parameter List**
  All actions, which are defined in a ticket rule, work with the ticket parameters. The parameters list displays all known ticket parameters together with their descriptions. You can add, delete or modify new or customer specific parameters in this list. All parameters defined here can be selected in the rule definition dialogs.
  The parameter list has no separate detailed window.
  See: *"TicketRules': Parameters'* on page 429
- **Variables List**
  The list shows all variables which have been defined in TicketRules. Here you can define new variables which refer to a parameter or another variable and which may alter the value found in the current ticket for the referred parameter in different ways (alteration types calculation, replacement and so on). Variables receive their value in the moment they are used in a rule, that means, they cannot be used to store previous values (of a parameter). For this case you can define new parameters.
  In the lower part of the window you can edit the alteration code, if an alteration type is used for the selected variable.
  See: *"TicketRules': Variables'* on page 430
- **Value Table List**
  Value tables can be defined for the so called foreach action. Each column of a value table has a unique name to refer to it. With the foreach action a loop is started over each row of the specified value table. All other actions can now refer by the column

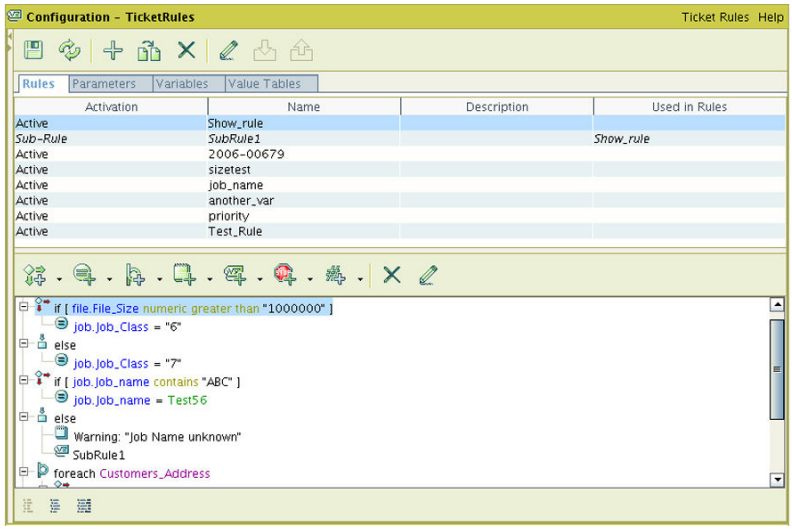
name to a specific value of the table. The table is editable inside and outside of Ticket Rules, therefore it is possible to import and export the table as a CSV-file. So the table could be created or edited in any spreadsheet calculation program. Each value table is referred by it's unique name.
The lower part of the window displays the selected value table and provides controls to modify the table.
See: *'TicketRules': Value Tables'* on page 437.

***Attention:***
All elements of a TicketRule are globally known over all rules and therefore must have an unique name!

*Note:*
Changes do not become valid until the 'Save' button is pressed.

*Note:*
The 'Used in Rules' entry cannot be edited. The name of the rule is added automatically as soon as the element is inserted in the action sequence of a rule.

## Illustration




## Main Tool Bar and 'Ticket Rules' Menu

| Menu Entry / Icon | Description |
|---|---|
| Save all elements | All changes done in the GUI are saved and become valid. Changes done in the GUI are not applied to tickets of incoming jobs before the save button is pressed. If the application is closed before saving the changes, the user will be asked to save the changes. |
| Discard all changes | All changes since the last save are discarded and the rules and other elements are reloaded from the server again. |
| Create a new element | Opens a dialog to create a new rule, parameter, variable or value table. A unique name is required for all these elements! |
| Copy selected element | Opens a dialog to copy and modify selected elements. First you have to enter a different name. The system automatically proposes the existing name plus a numbered extension. |
| Delete selected element | You are asked for confirmation, before the element is deleted. |

| Menu Entry / Icon | Description |
|---|---|
| Import value table | This button is only enabled if the value table tab is selected. A file selection box opens and a value table stored in a file with csv-format is imported. The user is also asked to define the exact csv-format. If the value table to import already exists, the user is asked if it shall be overwritten. If a column header that is referred by a rule is missing in the value table to import, the import action is canceled.<br>See: *'TicketRules': Value Tables'* on page 437 |
| Export value table | This button is only enabled if the value table tab is selected. The user is asked to define the exact csv-format. Then a file selection box opens and the value table is stored in a file with the defined csv-format. Only value tables that are correctly defined can be exported. |

## Color Codes and Activation Modes in the Rule List

Only well defined rules with status **true** and an appropriate **activation modus** can be applied if requested by the input module or mirror configuration. The status of a rule is reflected by different colors in the list:

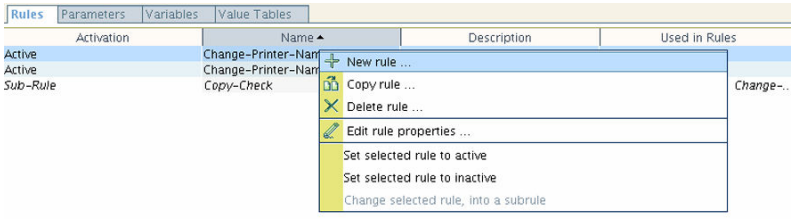
| Color | Description |
|---|---|
| Black | The activation mode is "Active" and the rule is "true". |
| Red | Implies the status "false", which means that there is an inconsistency in the rule definition. This can be a condition with no action following below, the usage of a not defined variable, the reference to a not well defined sub-rule etc. |
| Light gray | The activation mode is "Inactive" and the rule is "true". A rule with activation modus "Inactive" will never be applied and is ignored. Choosing this modus will switch off the rule. By that way it is possible to define a rule for later use. |
| Light pink | The activation mode is "Inactive" and the rule is "false". If a new rule is added the default activation modus is "Inactive" and the status is "false", since at least one action has to be defined for a rule. |

| Color | Description |
|---|---|
| Italic black | The activation mode is "Sub-Rule" and the sub-rule is "true". A rule with activation modus "Sub-Rule" can only be used by other rules and can not be requested itself. A sub-rule itself can not refer to other sub-rules. Therefore a sub-rule is only applied if it is referred by another rule which is "Active". Since a sub-rule may be referenced by different rules with different activation modes and the reference may also depend on conditions, it is not possible to define a general activation mode ("Active" or "Inactive") for a sub-rule. |
| Italic red | The activation mode is "Sub-Rule" and the sub-rule is "false". |

## Right Mouse Button in the Lists

If you mark an entry in the lists and click it with the right mouse button, the effect is the same as clicking the 'Edit' button in the tool bar: the Edit dialog of the selected element opens.

The only exception is the 'Activation' column in the rule list: If you click on a marked entry (multiple selection is also possible) a context menu appears where you can quickly activate or deactivate rules or where you can transform a rule into a subRule:




The change is only done for rules which allow the change. For example you cannot change an active rule (superRule) - which refers to a subRule - into a subRule.

# 'TicketRules': Definition of Rules

## Introduction

Rules can be defined in the rules definition window below the rule list.

## Rule Definition Window and Tool Bar

To add or delete an action, you can use the appropriate button in the tool bar. Before an action can be added, a node or another action has to be selected. For every action you can choose whether it should be inserted before or after the marked element. After clicking the 'Add ...' button, the appropriate window to select an existing action or to define a new action in detail is opened (see *"TicketRules': Definition of Conditions, Settings, Messages and Return/Exit'* on page 425). If you have finished the definition, this action will be added. Already defined actions can be modified if you click the selected action element with the right mouse button or if you click the Edit icon in the tool bar.

By clicking on a selected action with the right mouse button the appropriate action definition window for this action is opened and the selected action can be edited.

| Icon | Description |
|---|---|
| 'Add condition'<br>before ...<br>after ...<br> | Opens the condition definition window and allows editing of conditions (check a value of a parameter in the incoming job ticket against a specified parameter value). Finally a valid condition can be chosen and this will be added to the sequence of actions. Simultaneously a placeholder is inserted which has the focus so the next action can be placed here. A condition with an empty block makes no sense and is therefore not considered as well defined.<br>See: *"TicketRules': Definition of Conditions, Settings, Messages and Return/Exit'* on page 425. |
| 'Add or-condition ...' | Allows you to add more conditions by disjunction. |
| 'Add else' | An else statement will be added to the sequence of actions. |
| 'Add setting'<br>before ...<br>after ...<br> | Opens the 'Add settings' dialog' which allows editing of settings (see *"TicketRules': Definition of Conditions, Settings, Messages and Return/Exit'* on page 425). Finally a valid setting can be chosen and this will be added to the sequence of actions. |

| Icon | Description |
|---|---|
| 'Add foreach'<br>before ...<br>after ...<br> | This new action type is intended for the use of Value Tables. An existing Value Table has to be selected. Simultaneously a placeholder is inserted which has the focus so the next action can be placed here. A loop with an empty block makes no sense and is therefore not considered as well defined. The foreach loop will walk over every row of the selected value table and process the actions in its block for every row.<br>See: *''TicketRules': Define Foreach Loop'* on page 435. |
| 'Add message'<br> | Opens the 'Add Messages Dialog' which allows editing of messages (see 'Add Messages Dialog'). Finally a valid message can be chosen and this will be added to the sequence of actions.<br>See: *''TicketRules': Definition of Conditions, Settings, Messages and Return/Exit'* on page 425 |
| 'Add subRule'<br> | Opens the 'Add Sub-rules Dialog' which allows editing of sub-rules (see 'Add Subrule Dialog'). A sub-rule can be chosen and this will be added to the sequence of actions. |
| 'Add Return'<br>before ...<br>after ...<br> | A return statement will be added to the sequence of actions. |
| Add exit<br>before ...<br>after ... | An exit statement will be added to the sequence of actions. |
| Add exit job<br>before ...<br>after ... | An exit job statement will be added to the sequence of actions. |
| 'Add comment'<br>before ...<br>after ...<br> | This action type is intended for better clarity of the rules. With enough clear comments a rule will be much easier to maintain. |
| 'Delete tree entry action'<br>✕ | Deletes the selected action from the sequence of actions. |

# 'TicketRules': Definition of Conditions, Settings, Messages and Return/Exit

## Introduction

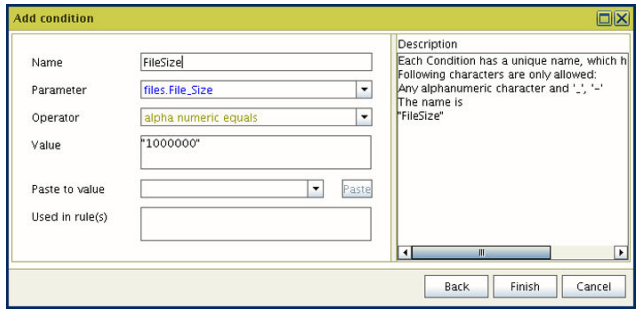
There are dialogs to add a condition, a setting, a foreach action, a message, a subRule, a return/exit command or a comment to a rule. All these dialogs contain a list of previously defined actions and offer the functionality to use existing, create new or to copy elements. The genaral procedure to define these actions is as follows:

- Click the appropriate 'Add before' or 'Add after' button of the desired action in the rule definition tool bar to open the corresponding action definition window.
- If you click 'Use existing' in the action definition window, the selected action will be added to the sequence of actions at the selected position.
- Click the 'Copy' button to copy and modify an existing element.
- Click the 'Add new' button to open the definition windows for conditions and settings.
- Click the 'Cancel' button to close the action definition window without changes.

## General features and conventions

Errors in any field (for example if the name inserted is not unique) turn the text in this field into red and a short description of the error can be seen in the tool tip.

## 'Add condition' Dialog




Each condition contains a 'Name', a 'Parameter', an 'Operator' and a 'Value'. The name of the condition must be unique because all conditions are globally known over all rules.

The 'Parameter' for the condition can be selected from a drop down list. This ensures, that no misspelling occurs. Variables can also be used as parameters. The user defined variables can be selected at the end of the drop down list. Parameters are marked in blue color, variables in green.

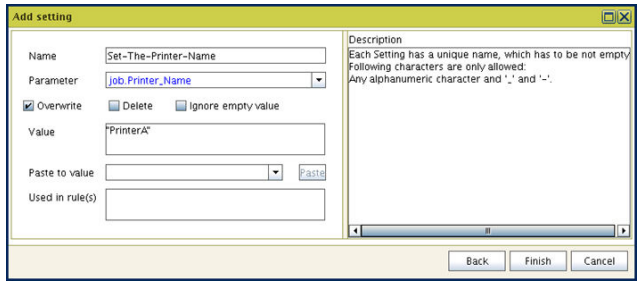
Operators are used for conditions. You can select an operator from a drop down list.
A condition with the operator 'does not exist' is true if the specified key of the section does not exist in the ticket. The value is obsolete in this case.
Please note that this condition is different to 'is not set'. The latter one is true, if the parameter does not contain a value or does not exist in the ticket.
The operator 'matches reg. ex.' is true if the specified parameter value matches the regular expression, given in the value column.

The value you set in the 'Value' field is automatically set in double quotes. You can also check the content of a variable. To do this, select a variable in the 'Paste to value' field and paste it with the button next to the field to the value field.

The 'Used in rule(s)' field is not editable and is filled automatically if the action is inserted in the rule.

The definition of a condition is always checked for consistency. If there are inconsistencies, for example if the condition name already exists, the font color is red and a tool tip shows the cause. If the condition is well defined the font color turns into black. Only if all elements of the condition are correct, the 'Finish' button becomes active and you can add the condition to the sequence of actions.

## 'Add setting' Dialog




Each setting contains a 'Name', a 'Parameter', an 'Overwrite' flag and a 'Value'. The name of the setting must be unique because all conditions are globally known over all rules.

The 'Parameter' for the setting is selected in the same way as for conditions.

If the setting should overwrite an already existing section/key entry in the ticket, the 'Overwrite' flag has to be selected. The default status of the overwrite selection box is checked.

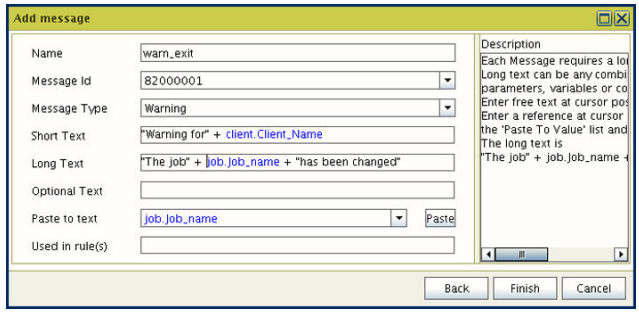
A value can also refer to a variable (see *''TicketRules': Variables'* on page 430). For example it would be possible to check if the printer_name is part of the job_name. Use the 'Paste to value' list box to select an existing variable and to paste it into the 'Value' field.
A value may also be set to '[delete]', which means that the whole key entry will be deleted in the ticket, which is not the same as to set an entry to '' (empty). The '[delete]' must not be typed in, but can be selected from the combo box.

The definition of a setting is always checked for consistency. If there are inconsistencies, for example if the setting's name already exists, the font color is red and a tool tip shows the cause. If the setting is well defined the font color turns into black. Only if all elements of the setting are correct, the 'Finish' button becomes active and you can add the setting to the sequence of actions.

## 'Add message' Dialog

The Ticket Rules application offers the possibility to generate a message, when the rules are applied to the ticket. 5 different messages with totally free text are offered. They differ only in the message type: Log, Error, Warning, Info and User-Action. To create a message, you first have to enter a unique Name and then select the appropriate Message Id. The corrensponding Message Type is then inserted automatically. These two text fields are connected to each other. So selecting a specific message type will automatically select the appropriate messageID and vice versa.

Then you have to type in at least a Short Text and a Long Text to get a valid message. You can also use parameters and variables in the message text. For example it would be possible to display the job name in the message. To do this use the 'Paste to text' field. Here you can select a parameter or variable and paste it into the other text fields at the cursor position. The different parts of the message text string (user defined text and pasted elements) are separated by a '+'.




The definition of a message is always checked for consistency. If there are inconsistencies, for example if the message name already exists, the font color is red and a tool tip shows the cause. If the message is well defined the font color turns into black. Only if all elements

of the message are correct, the 'Finish' button becomes active and you can add the message to the sequence of actions.

## 'Add rule' Dialog

This table shows all rules, which are subRules. This means the activation modus is subRule. Depending on the status of the subRule, the font color is red or black. SubRules are always part of a superRule.
Apart from superRules you can change any rule to a subRule in the rules list (see *"TicketRules': Main Window"* on page 418.

## Add Return/Exit

Adding other action entries will not open a definition window.
Other entries are:

| Action | Description |
|---|---|
| Return | Stop rule execution here, but continue rule execution in superRule, if this is a subRule. |
| Exit | Stop execution of this rule and of the possibly existing superRule. |
| Exit job | Like exit, but also stop job execution in the PJM. This can be useful to check if a job can be printed with the given environment at a print site. When a job is not submitted due to reaching 'Exit job' in ticket rule execution, a message is generated automatically by the ticketrule server. |

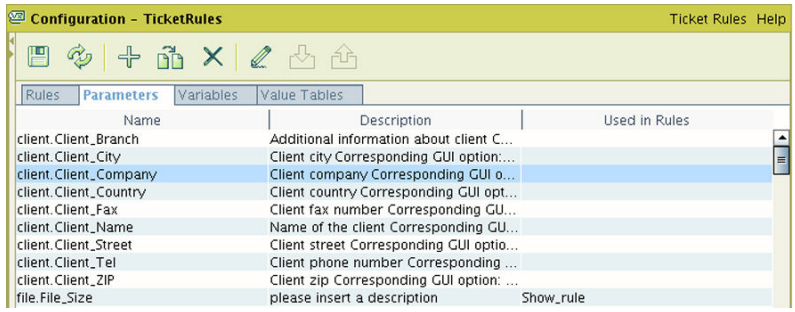
# 'TicketRules': Parameters

## Introduction

All actions in a ticket rule work with the ticket parameters. If you click the 'Parameters' tab a list with known ticket parameters and their descriptions is displayed. New or customer specific parameters, which are not in this list, can be added, edited and deleted in this table.
Predefined parameters cannot be edited or deleted.

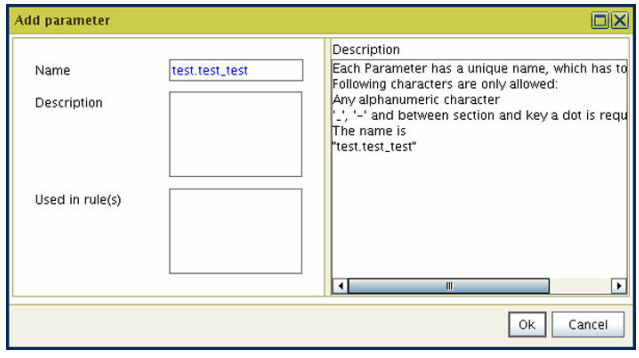
*Note:*
All parameters which you define here are globally known over all ticket rules and must therefore have a unique name.

## Illustration




## Add Parameters

Click the 'Add' button in the main tool bar to add a user defined parameter. You can enter a name, which is only valid if it contains a '.' between section and key. Additionally you can add a description text. All user defined parameters can be modified later on.



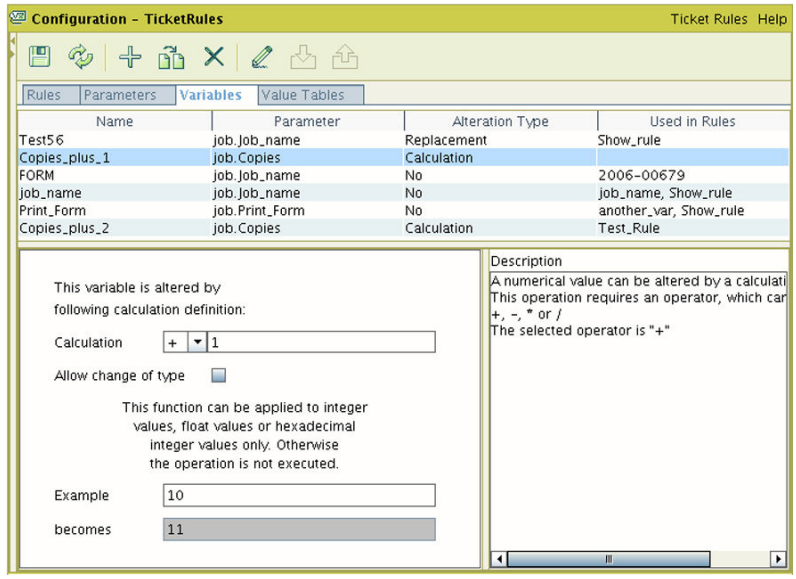
# 'TicketRules': Variables

## Introduction

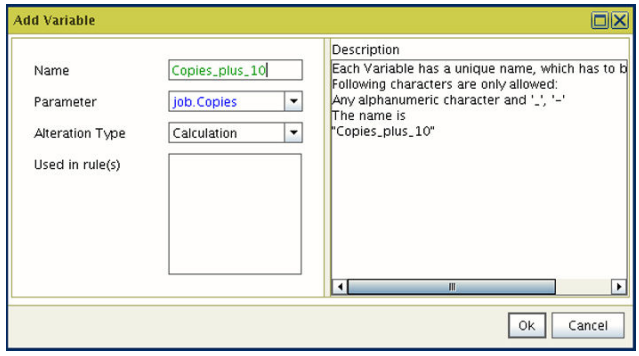
If you click on the 'Variables' tab, a list with all variables, which have been defined before is displayed. Use the icons in the main tool bar to add, copy, modify and delete variables. If the variables are designed to alter existing values in job tickets, the Alteration Type can be configured in detail in the lower half of this window.

*Note:*
All variables which you define here are globally known over all ticket rules and must therefore have a unique name.

## Illustration




## Add Variable




Click the 'Add' button to create a new variable.

| UI-Element | Description |
|---|---|
| 'Name' | Enter a unique name because all TicketRules can reference the variable. |

| UI-Element | Description |
|---|---|
| 'Parameter' | Variables can refer to a parameter or another variable (which has been defined before). The variables can be used in the actions like parameters.<br>Here you can select all known job ticket parameters as well as variables which have been defined before. |
| 'Alteration Type' | The alteration types 'Calculation', 'Field', 'Replacement' and 'RegEx Replacement' can be selected (see below).<br>If you select 'No' the variable is not altered. |

## Alteration Types

The alteration types alter the value found in the current ticket for the referred parameter in different ways.

## 'Calculation'

If you select alteration type calculation, a definition dialog appears in the lower part of the window (see screenshot of the variables list).
This function can be applied to integer and float values only. If the selected parameter contains a string value, then this calculation is not executed.

The contents of the variable is modified by executing the defined calculation. This calculation is defined by the:

- **calculation operator**
  (select "+", "-", "*" or "/" from the drop down menu)
- and the **calculation value**.

The 'Example' and 'becomes' fields show how a given value is changed by the current calculation definition. These fields are directly adapted to the definition if this is changed. It's also possible to type in an example value and to see how it is changed by the current definition.

If you press the 'Ok' button, the syntax is checked for correctness and the calculation definition is inserted in the selected cell.

**Examples**:

- Increment an integer value by 10:
  **+10** (This means: Operator: '+'; Value: 10)
  Example: "32' -> "42"
- Multiply a float value:

***2.15** (This means: Operator: '*'; Value: 2.15)
Example: "3.1' -> "6.665"

## 'Replacement'

If you select alteration type replacement, a definition dialog appears in the lower part of the window.

The contents of the variable is modified by exchanging the string defined in 'Find' with the string defined in Replace: . 'Occurrences' defines how many occurrences of the string are replaced. 'Occurrences' can be set to any positive number or to all. An empty replace string is allowed also.

The Find and Replace can be done case sensitive or case insensitive. By default the check box is selected and the replacement is done case sensitive.

The 'Example' and 'becomes' text fields show how a given text is changed by the current 'Replacement' definition. These text fields are directly adapted to the definition if this is changed. It's also possible to type in an example text and to see how it is changed by the current definition.

When pressing the 'Ok' button, the syntax is checked for correctness and the 'Replacement' definition is inserted in the selected cell. The 'Find' and the Replace: character strings are enclosed in quotes ('), separated by a blank and followed by a blank, followed by the number of 'Occurrences' (or all), followed by another blank and an indicator for case sensitive (cs) or case insensitive (ci) use.

**Examples**:

- Replace case sensitive all occurrences of '-special-' with '-':
  **'-special-' '-' all cs** (This means: Find: '-special-'; Replace: '-'; Occurrences: all, case sensitive)
  Example:
  "super-special-extra-job" -> "super-extra-job"
- Delete the first three occurrences of 'new' in a string:
  **'new' '' 3 ci** (This means: Find: 'new'; Replace: ''; Occurrences: 3, case insensitive)
  Example:
  "a New very new fine new total new job' -> "a very fine total new job"

## 'RegEx Replacement'

This function is similar to the 'Replacement' alteration type described above. The difference is that the search string is regarded as regular expression. This gives you the possibility to impose any complex filter criteria for the search.

## 'Field'

If you select alteration type field, a definition dialog appears in the lower part of the window.

The 'Delimiter' character divides the value of a key into fields, excluding the delimiter itself. If the delimiter is not set, then each character becomes a field. If the value starts with the delimiter the first field is empty and the second field starts after the first delimiter. If there is no other character between two delimiters the generated field is empty, but counted. The 'Delimiter' has a maximum size of one character.

The entries 'From Field' and 'To Field' define the range of fields which are extracted from the value. The fields are numbered in increasing order from left to right starting with 1 and in decreasing order from right to left starting with -1. This is illustrated in the following example with empty delimiter (each character is one field):

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| T | e | s | t | s | t | r | i | n | g |
| -10 | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | -1 |

The delimiter is placed between each selected field.

The 'Example' and 'becomes' text fields show how a given text is changed by the current field definition. These text fields are directly adapted to the definition if this is changed. It's also possible to type in an example text and to see how it is changed by the current definition.

When pressing the 'Ok' button, the syntax is checked and the field definition is inserted in the selected field. The delimiter is enclosed in single quotes ('), followed by a blank, followed by the field range definition with the syntax [<From Field>:<To Field>].

**Examples**:

- Extract the characters 5 to 10 from a string:
  **'' [5:10]** (This means: Delimiter: ' '; From Field: 5; To Field: 10)
  Example: "Teststring" -> "string"
- Cut off all characters including the '_' character:
  **'_' [2:-1]** (This means: Delimiter: '_'; From Field: 2; To Field: -1)
  Example: "Global_Company_Name" -> "Company_Name"
- Extract all characters between the first two '/':
  **'/' [2:2]** (This means: Delimiter: '/'; From Field: 2; To Field: 2)
  Examples: "/etc/hosts" -> '"etc" or "etc/hosts/test"' -> "hosts"

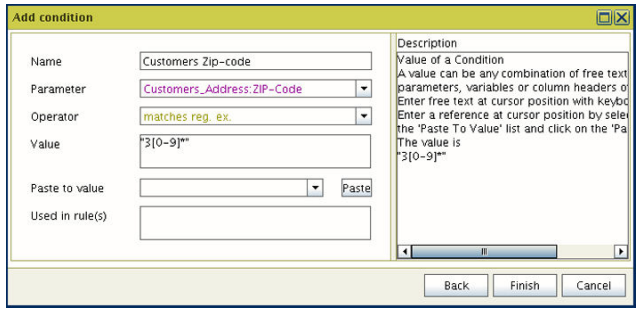
# 'TicketRules': Define Foreach Loop

## Introduction

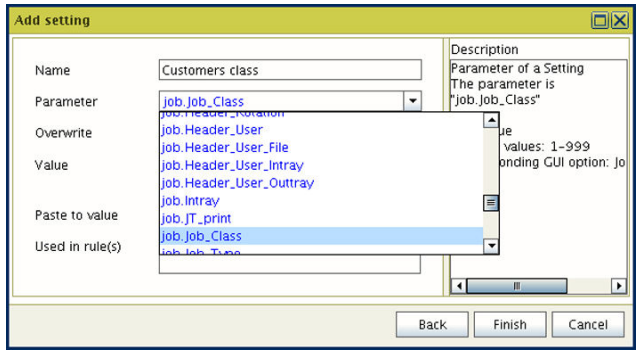
The following example explains the usage of the 'foreach' action type with value tables.

## Example

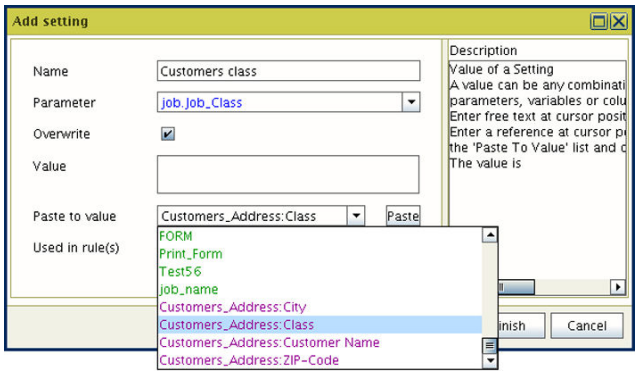
First a condition has to be added which refers to a value table row:



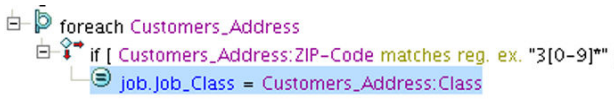

Then for example a setting can be added that changes a parameter value using a value out of the value table:




The next picture also shows the use of colors and the pasting of strings to a value: When you click into the value field you can select a Parameter, Variable or Value table row in the 'Paste to value' combo box and then paste it to the value at the cursor position. This is also described in the Description part at the right side when the cursor is in the value field:




The resulting foreach loop shows like this: The value table is evaluated row by row. If the zip code matches, the parameter Job_Class is set to the value of Class in this row. The last matching row wins as the loop goes down over all rows of the table.



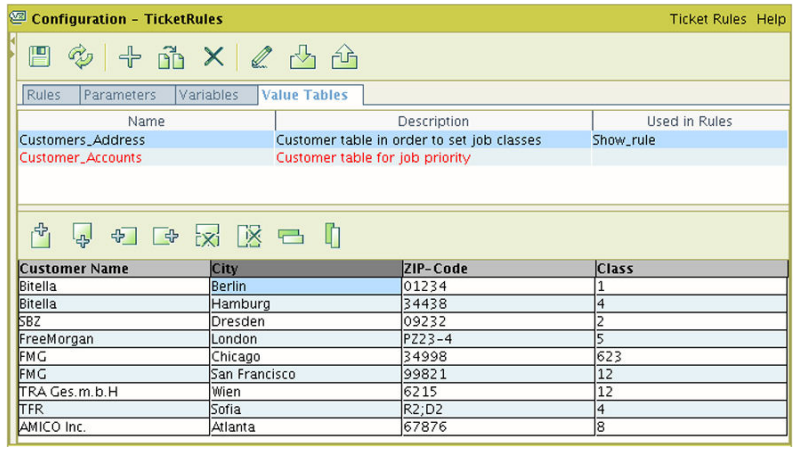
# 'TicketRules': Value Tables

## Introduction

For the foreach action (see *"'TicketRules': Define Foreach Loop'* on page 435) value tables can be defined. Each column of a value table has a unique name to refer to it. With the foreach action a loop is started over each row of the specified value table. All other actions can now refer by the column name to a specific value of the table.
The table is editable inside and outside of TicketRules, therefore it is possible to import and export the table as a CSV-file. So the table could be created or edited in any spread-sheet calculation program. Each value table is referred by it's unique name.

*Note:*
All value tables which you define/import here are globally known over all ticket rules and must therefore have a unique name.

## Illustration




## Create/Import Tables

Click the 'Add' button in the main tool bar to create a new table (insert unique name and description).
Use the icons in the table details window below to build up the value table. The icons can also be used to modify existing tables.

*Note:*
It is not possible to delete rows which are used in a rule.

Click the 'Import' button ( ) in the main tool bar to import a value table. If the value table with this name already exists, the system checks whether the table is used. In this case at least the column names used in rules must be present in the value table to be imported. In every case the table will only be imported if it is well defined, especially unique names must be used for every row title.

# 'TicketRules': Save and Log

## Save, Backup and Restore

If you click the ’Save’ button or if the application is closed and the question to save the changes is confirmed with ’Yes’, the ticket rules are saved as xml-file in the directory '/u/prismapro/cfg/ticketRules'. The rules are restored from this file, when the application is opened again.
The list of known sections and keys is saved in the file '/u/prismapro/lib/ticketRules/ticketParameter.dat'. This file is updated, when changes have been approved in the list of known sections and keys.
The value tables are stored in the '/u/prismapro/cfg/ticketRules' directory.
The ticket rules, value tables and the ticketParameter.dat file are exported as a part of the database export during prismadiag.
The ticket rules, value tables and the ticketParameter.dat file are saved and restored in a ’Backup/Restore’.
If Océ PRISMAproduction Server is updated, the ticket rules and the list of known parameters are restored. If the default list of known parameters has been changed between the old and the new version, the ticketParameter.dat file is updated accordingly.

## Logs and Traces

When a rule is applied to a job ticket, a section named 'ticketRulesHistory' is added at the end of the ticket. This section contains a list of all parameters which were changed by the rule, but with the value before the rule was applied. The syntax of the parameters is:

'section.key = value '
For example: 'job.jobname = old_name'

For sections which can occur multiple times, also the number of the specified section is defined:

'files[10].File_Copies = 3'

Traces are written into the files **explorer.<Linux login_name>.out** and **explorer.<Linux login_name>.err** in '/u/prismapro/diag/explorer' and in **explorerserver.log** and **explorerserver.err** in '/u/prismapro/diag/explorerserver'.

# 'TicketRules': Activate for LP, Download and HotDir

## Introduction

Please choose as program for the job submission: 'TicketRules' for the desired port, printer or directory in the Download, LP or HotDirectory Configuration Window.

## Examples for the usage for jobs transmitted via download to Océ PRISMAproduction Server:

- Depending on the MVS jobs class, a specific Formdef should be selected for the job.
- Depending on the FORMS parameter a specific Océ PRISMAproduction Server printer should be selected in the job ticket.
- Depending on the BUILDING and ROOM parameter specific Océ PRISMAproduction Server printers and Job queues are selected.

The description for the valid sections, parameters and values you find in *'Oce Custom Ticket'* on page 548.

# 'Archives'

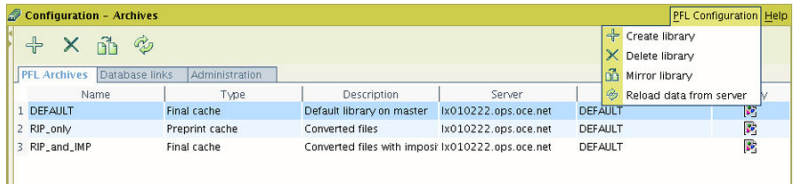
## 'Archives': Overview

### Introduction

In the 'Configuration' workspace you find the 'Archives' application which allows you to create new archives or to modify and mirror existing archives for the POD-Module print data. Additionally you can create the database connection or set up the Document Manager Cache for the archives. Finally you can back up and restore document and job data.

The user interface consists of three or four tabs (the connection to the Document Manager Cache is not available as tab by default, it can be switched on via the menu):

### Illustration




### Tabs of the 'Archives' Application

- 'PFL Archives'. See *"Archives': 'PFL Archives"* on page 443
- 'Database Links' / 'Document Manager Cache'. See *"Archives': 'Database Links' / 'Document Manager Cache"* on page 445
- 'Administration'. See *"Archives': 'Administration"* on page 451

### Tool Bar Icons

| Icon | Description |
|---|---|
| Create archive<br>+ | Opens a dialog to create a new archive.<br>See *"Archives': 'PFL Archives"* on page 443. |
| Delete archive/mirror<br>× | Opens a dialog, which allows you to select the correct server for the deletion of the marked archive in the list. |

| Icon | Description |
| --- | --- |
| Mirror archives | Allows you to mirror the selected archive on a different server. Select a server in the dialog box and click 'OK'. |
| Reload data from server | Shows the actual status of the data stored in the database. Any changes that you have made via the interface are discarded if you do not save them prior to executing this function. |

# 'Archives': 'PFL Archives'

## Introduction

The 'PFL Archives' list displays all archives which are configured on the servers of the POD system.

## List of archives

The 'Archives' list displays all archives which are configured on the servers of the POD system.

| Column title | Description |
|---|---|
| Name | Name of the archive. The name must start with a character. Only numbers and characters are allowed. |
| Type | **Final cache**<br>Print jobs that are ready and that can be reprinted anytime are stored in the final cache. These jobs can no longer be modified, however. Files stored under the same name are not overwritten and are assigned with an internal number.<br>**Preprint cache**<br>Stores data, which have to be saved for further processing, for example converted IOCA files which are not yet imposed. The Preprint Cache is also used to prepare a job. You should use this function if you want to test several PDC settings for one print job.<br>To do this, you should create a job ticket for which you have not yet made Composer settings. The system will then run the files of the print job through the corresponding converters and store them on the server. After this is done, you can load these print jobs, edit them with the Composer and view them with the PDV, if you wish. You can repeat this process until you are pleased with the results. If you store modified files under the same name, the old files are overwritten. The advantage of this mechanism is that there is no need to repeatedly convert the files of the print job. |
| Description | More detailed description of the archive. |
| Server | Displays the server, on which the archive is located. |

| Column title | Description |
|---|---|
| Database links | Displays the database type the local archive is connected to. Except for the preprint archives all archive are connected to a database. The default connection is to the PostgreSQL database, which ships with the Océ PRISMAproduction Server software (DEFAULT). |
| Ready | Indicates that the archive is stored correctly and ready to use. This might take a while if you mirror archives of many megabytes. You can only use archives in the PJM, which have the status 'Ready'. |

## Create a PFL Archive

Click the 'Add' button (+) or select menu 'PFL Configuration' -> 'Create library' to create a new PFL archive:

- In the followin dialog enter a 'Name' for the new archive (only alphanumeric characters are allowed).
  Select as archive 'Type' 'Final cache' or 'Preprint cache'. This selection depends on the type of data you want to save (see description above).
  After entering a more detailed 'Description' of the archive, you can select the 'Server' from a list (if the POD system consists of more than one server).
  Under 'Database Link' you can select the default database link (DEFAULT=Postgres) or a name of another connection, which has to be configured before on the 'Database links' tab (see *"'Archives': 'Database Links' / 'Document Manager Cache'* on page 445).
  Archives of the 'Preprint cache' type cannot be linked to a database. The selection is the deactivated.
- If you click 'OK' the archive is physically created on the selected server. The changes are saved in the database. A message informs you about the successful creation of the archive.

# 'Archives': 'Database Links' / 'Document Manager Cache'

## Introduction

From version 3.10 all archives are **always** linked to a database.
The documents of the PFL archives are kept in the file system while the meta data of these documents are saved in an external database.
Meta data of the documents are additional information like the last access of the document, the access frequency of the document, the input files from which the document has been created and many more job ticket details.
In the PJM file selection these meta data enable you to search for specific properties of documents and to find them accordingly (see *'Archives': Search Function'* on page 453).
From this version of the Océ PRISMAproduction Server POD-Module you can only create PFL archives which are connected to a database.
Documents of externally connected PFL archives are **always** exported to this external archive. This means that the document data are always kept together with the meta data on one server.

The connection to a **Document Manager** database on a Windows server is a special case: only in this case a cache can be created and only in this case the document data are stored directly in the database. If the physical disk space of the PFL archive is running short, some documents will be deleted according to a specified threshold and method. Documents stored on an external archive are not affected by this procedure! In this way the PFL archive can be regarded as a cache. If you need again documents, which have been deleted from the PFL archive, they will automatically be retrieved from the external archive.

*Note:*
To ensure, that the algorithm for deletion of documents in the PFL archive works properly, you should assign an own partition to the externally connected archive for example for '/u/prismapro/data/archive/Default'. The threshold which controls the deletion of documents always relates to the disk space of the whole partition.

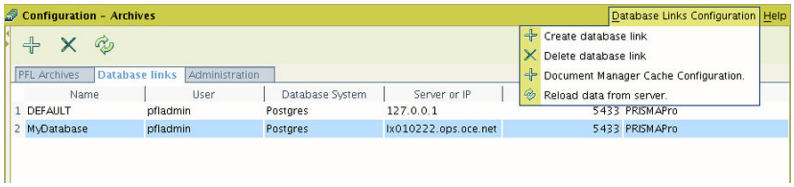
## Configuration

There are two dialogs in Océ PRISMAproduction Server, which allow the configuration of this feature:

| Dialog | Description |
|---|---|
| 'PFL Database Link Wizard' | Configuration of a connection to the database.<br>Set the user name, password and IP address of the server, on which the external archive is located. By default the PostgreSQL database, which comes with Océ PRISMAproduction Server, is connected (see *"Archives': Appendix'* on page 455). You can use the administration application described below only with this database. Still it is possible to connect other types of databases (see *"Archives': Appendix'* on page 455). |
| 'Create Document Manager Cache' | This dialog creates the link between PFL archive and the Document Manager database.<br>Set the PFL archive. Configure also the threshold for the beginning of deletion, the amount of data to be deleted and the deletion method. From version 3.10 the configuration of the cache archive (as PFL.cache for external archives) is provided for the Document Manager as external database system only (see *"Archives': 'Database Links' / 'Document Manager Cache"* on page 445). |

## Create 'Database Links'

Before you can connect a PFL archive to another database as the default database, you have to create a database link in the system an save this link under a specified name:




In the 'Archives' window first activate the 'Database links' tab or click on + to start the configuration wizard. The wizard guides you through the following steps:

- Enter a 'Name' for the link
- Selection of the 'Database System': Postgres, MySQL, DB2, Firebird, MS SQL, Oracle, SAP_DB or Document Manager (Postgres=Default). Enter the 'Port' number for the connection and the 'Server or IP', which holds the database. If you select the Document Manager, no port value is preset.
- Enter the 'Database User' (select a login account of an Océ PRISMAproduction Server user from the list) and a 'Database Password' (at least six characters). The name of the selected user must be identical with the user created on the external server.

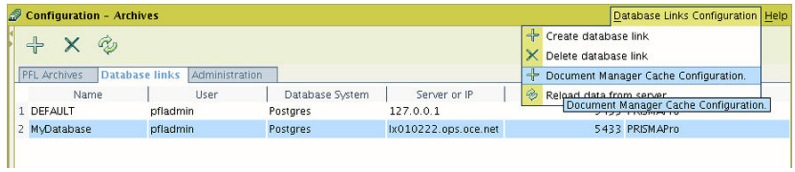
- Select the 'Document Transfer' (specification of the network filesystem). The transfer types are described in detail in 'Network Filesystems selectable for the Data Transfer'.
- Display of a 'Conclusion' of your settings. If you click 'Finish', the database link will be added to the list.

After creating a database link, you can create an archive, which can be connected to this database. See *"Archives': 'PFL Archives"* on page 443.

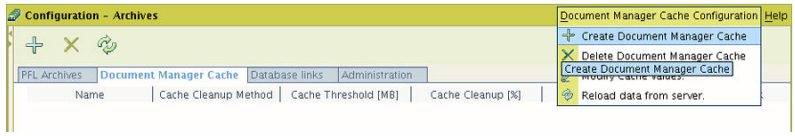
## Create 'Document Manager Cache'

From version 3.10 the configuration of a cache archive (as PFL cache for external archives) is only possible for the **Document Manager** as external database system.

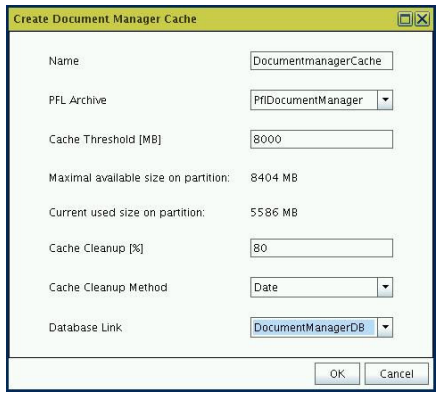
- In the 'Archives' window activate the 'Database Links' tab and select menu 'Database Links Configuration' -> 'Document Manager Cache Configuration':




- A new tab 'Document Manager Cache' appears, which allows you to create the cache (provided the connection to the Document Manager server is active):




- Select menu 'Document Manager Cache Configuration' -> 'Create Document Manager Cache'. The following dialog opens:




| Ui Element | Description |
|---|---|
| 'Name' | Free form name of the Document Manager cache. Only use alphanumeric characters. |
| 'PFL Archive' | Select the desired PFL archive (for example 'PflArch01'). |
| 'Cache Threshold [MB]' | Value from which the deletion of documents in the PFL is started. This value must not exceed 'Maximal available size on partition'. |
| 'Maximal available size on partition:' | Size of the partition, on which the PFL archive is located. |
| 'Current used size on partition:' | Currently used size of the partition, on which the PFL archive is located. |
| 'Cache Cleanup [%]' | Percentage value between 0 and 100. It defines how many percent of the data in the PFL archive are to be deleted if the threshold has been exceeded.<br>A document which is deleted from the PFL has the size -1. This means this document is not stored locally anymore, but only on the external server. |
| 'Cache Cleanup Method' | Opens a list of available methods:<br>- **Date**: Deletion depends on the date. Oldest documents first.<br>- **Size**: Deletion depends on the size. Smallest documents first.<br>- **Match**: Deletion depends on a pattern. Wildcards like * or ? are allowed. All documents which match the pattern are deleted.<br>- **NonMatch**: Same as above, but all documents which do not match the pattern are deleted. |
| 'Database Link' | Select the external archive, which should be connected to the PFL archive selected above. |

## Create a Document Manager Database on an External Server

A version of the Document Manager must be running on the Windows 2000/2003 server, where the external archive should be created (see 'Océ PRISMAarchive Document Manager' User Guide, chapter 11).

**Configuration of the Document Manager on the Windows 2000 (2003) Server for the correct Connection to the Print File Library**

- **Create user**: For a correct connection to the Print File Library you have to create a user **pfladmin** after the installation of the Document Manager (under Windows). This user must have the same password, which has been used to set up the database connection under PRISMAproduction.
  If a different user than **pfladmin** has been set for the database connection, under Windows an account for a user of the same name has to be created. Under Windows this user should be part of the "DocMa Document Managers" and "DocMa System Administrators" groups.
- **Settings in the PRISMAarchive Administration**: Use the tool under 'Programs' -> 'Oce' -> 'Oce PRISMAarchive' -> 'Administration' to create the PFLEXT database under this user account:
  Under 'Console Root' -> 'Oce PRISMAarchive Administration' -> 'Storage Administration' -> 'Archives' create an archive with the name PFLEXT.
  Under 'Console Root' -> 'Oce PRISMAarchive Administration' -> 'Document Administration' -> 'Attributes Pool' set up the following attributes with name, type and length:

| Name | Type | Length |
|---|---|---|
| PflName | String | 256 |
| PflPath | String | 256 |
| PflSearch | String | 1024 |
| PflVersion | Integer | - |

- Under 'Console Root' -> 'Oce PRISMAarchive Administration' -> 'Document Administration' -> 'Document Templates' create a template with the name PFLDOCUMENT which contains the attributes **PflName**, **PflPath**, **PflVersion** and **PflSearch**.
- Under 'Console Root' -> 'Oce PRISMAarchive Administration' -> 'Document Interfaces' -> 'Profile' create a profile in the Business Domain Defaullt with the name PFLEXT and the owner pfladmin (or the user ID created under Océ PRISMAproduction Server).

**IIS=Internet Information Service (Winows Server 2000/2003)**

Start the tool with 'Start' -> 'Administrative Tools' -> 'Internet Information Services (IIS) Manager' and allow under 'Internet Information Services' -> 'Local Computers'-> 'Web Service Extension' the following settings:

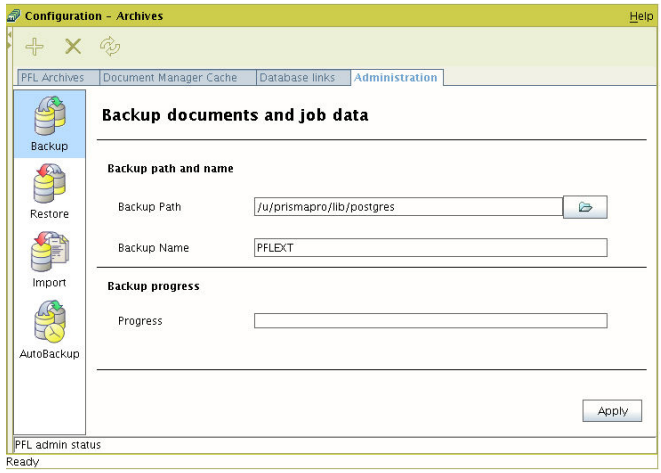
- All unknown CGI Extensions
- All unknown ISAPI Extensions
- Active Server Pages
- Server-Side Includes (SSI)

# 'Archives': 'Administration'

## Introduction

On this tab you find a collection of basic administration tools for the archives and external databases. You can save and restore the data, you can automate the backup process and you can transfer data from older Océ PRISMAproduction Server versions.

## Illustration




## 'Backup documents and job data'

*Note:*
This backup works only for the Océ PRISMAproduction Server PostgreSQL database system and the PFLEXT database.
For backups with different databases, the database itself or the system administrator is responsible. It cannot be performed by Océ PRISMAproduction Server itself.

Here you can select the directory and the name of the backup. The default database PFLEXT of Océ PRISMAproduction Server will then be saved under this name:

*Note:*
Not only the documents of a PFL archive are saved, but also the meta data of the PFLEXT database. This means that document data AND meta data are saved in one file with the .backup.tgz extension.

## 'Restore documents and job data'

' Restore Filename': The backup ’filename’ is restored in the Océ PRISMAproduction Server PostgreSQL database system.

## 'Import documents of previous PRISMAPro versions'

Indicate the directory, which contains the documents of the older program versions. Then enter the PFL archive, which should receive these documents.

The documents are copied from the directory into the PFL archive. Then the meta data will be analyzed and written to the database.

## 'Automated backup of documents and job data'

This dialog allows you to automatically backup the document and job data daily, weekly or monthly from a defined point in time. The backup is written into the given directory under a given filename. If you select 'with date stamp', the current date will be added to the filename.

Additionally an e-mail can be sent automatically to a certain receiver as soon a backup is started. The respective mail server has to be configured under System in the configuration workspace.

The settings can be summarized in the 'List of tasks'. This list can contain several tasks. If you click ’Apply’, the tasks are accepted by the system.

# 'Archives': Search Function

## Introduction

If you search the local file system, you have the following possibilities:

## Search Locally with the PJM File Selection

Click 'Add input File' ( ) in the PJM 'List of Files' section. Then click the search icon ( ). Now you can search the Océ PRISMAproduction Server file system for the required files.
You can search for a file 'Name (*,? possible):' (wildcards * and ? are allowed) or for 'Content:' (text, which is in the file, you search for) or for files of a certain 'File size:' ot modification date ('Last modified:'). You can also include 'Subdirectories' in the search.
If you search in archives, which are connected with a database, you can select much more criteria to find the correct files:

## Search in PFL archives connected with a database

Open again the file selection dialog in the PJM and navigate under 'Look in' to an external archive. If you click the search icon, the dialog will be enlarged and provides now a sub dialog, which allows you to search the external archive.

This sub dialog offers four tabs to specify you search:

| Tab | Description |
|---|---|
| 'Document' | If you select this tab, you can search for documents according to certain attributes like 'Size' ('Greater than', 'Smaller than'), 'Last access' ('From date', 'To date'), Hits ('More than', 'Less than') and Creation date ('From date', 'To date').<br>The number of 'Results' cab be limited (up to 200). |
| 'Job Info' | Under this tab you can specify 'Job name', 'Job queue', 'Printer name' and 'Printer type' of the jobs you are searching for. |
| 'Job Info Client' | Under this tab you can specify information on the client as a search filter to find the desired jobs. |
| 'Job Info Receiver' | Under this tab you can specify information on the receiver as a search filter to find the desired jobs. |
| 'Inputfile' | Under this tab you can specify attributes of the input file like 'Name', 'Format' (none, IOCA, PCL, TIFF, PDF-Unity, PS-Unity), 'ImpScheme' and 'ImpSetname' |

. After you have selected the search criteria and after clicking the search button, the search result is displayed in the upper part of the window.
If the default settings on a tab have been modified, the caption of the tab turns red.
The output of the results is also influenced by the number of results you have specified and the 'File type' filter.

# 'Archives': Appendix

## Network File Systems Selectable for the Data Transfer

| File System | Description |
|---|---|
| Local | File transfer as in previous Océ PRISMAproduction Server versions (Océ PRISMAproduction Server data transfer with master-slave configuration). |
| NFS | Network File System. The administrator has to mount a directory from the NFS server on the Océ PRISMAproduction Server server.<br>On the NFS server: The file '/etc/exports' must contain the path, server and access rights of the server which accesses the NFS server.<br>Example: '/usr/data/archiv 192.168.0.7'(rw, root_squash)<br>On the Océ PRISMAproduction Server server: You have to indicate the directory of the PFL archive as mount point. The default path of the PFL archive is: '/u/prismapro/data/archive'.<br>When mounting, you have to add the directory of the PFL archive, for example: 'mount -t nfs jupiter:/data /u/prismapro/data/archive/Default'<br>The NFS directory can also be mounted permanently by adding it to the '/etc/fstab'. After mounting the directory, the documents are written into the external directory instead of the local PFL. |

| File System | Description |
|---|---|
| SMBFS | Server Message Block File System like Samba. The administrator has to mount a directory form the Samba server or from a Windows computer (which inherently supports this file system) on the PRISMAproduction server.<br>On the Windows computer or the Samba server: The respective directories must be released with write permission for the user root.<br>On the Océ PRISMAproduction Server master: The directory of the PFL archive has to be indicated as mount point. The basic path of the PFL archives is '/u/prismapro/data/archive/'. When mounting, you have to add the directory of the PFL archive, for example: 'mount -t smbfs -o rw,lfs,username=root,fmask=0,dmask=0 //windows/data//u/prismapro/data/archive/Default'<br>The Windows directory can also be mounted permanently by adding it to the '/etc/fstab'. After mounting the directory, the documents are written into the external directory instead of the local PFL. |
| cifs type mount instead of smbfs type mount | For mounting file systems (shares) on Windows 2000 and later replace the used connection type form “smbfs” to “cifs”. Instead of using mount –t smbfs –o lfs<, more options> you should use mount –t cifs –o <options>. This connection has no problem handling all files, also bigger than 2GB.<br><br>*Note:*<br>The command syntax regarding all options has changed respective to smbfs! Please see ‘man 8 mount.cifs’ for further details. |

| File System | Description |
|---|---|
| NCPFS | Netware Core Protocol File System like Novell Netware. The administrator has to mount a directory of the Netware server on the Océ PRISMAproduction Server master.<br>On the Netware server: The respective directories must be released with write permission for the user root.<br>On the Océ PRISMAproduction Server master: The directory of the PFL archive has to be indicated as mount point. The basic path of the PFL archives is '/u/prismapro/data/archive/'. When mounting, you have to add the directory of the PFL archive, for example: 'ncpmount -S server -U root -V volume /u/prismapro/data/archive/Default'<br>The Netware directory can also be mounted permanently by adding it to the '/etc/fstab'. After mounting the directory, the documents are written into the external directory instead of the local PFL. |

*Note:*
Unfortunately you cannot automate the mounting of NFS, Samba and Netware directories, because administrator permissions are required for password input, creation of directories on external servers, adjusting access rights and other system activities. If you select one of the three network file systems when creating an external archive, you should mount the PFL archive on the external server as soon as you create the PFL archive which should be connected to the external archive.

## Default Database System PRISMAproduction PostgreSQL

With the version 4.0 a PostgreSQL database system is installed. In contrast to the default settings, the base directory of PostgreSQL is located in '/u/prismapro/data/postgres/base' and as port 5433 is used. Thus previous installations of PostgreSQL databases will not be disturbed.
Database users 'postgres' and 'pfladmin' are created. In the configuration files the postgres user will be granted full local access to the database system and the pfladmin user is granted local and external access to a database called PFLEXT. Every access, action or transaction on this database will be recorded in the file '/u/prismapro/diag/postgres/log'.
The PFLEXT database will be created on installation and initialized with the SQL script '/u/prismapro/data/postgres/share/PFLEXT.postgres'.
In Océ PRISMAproduction Server an external archive called DEFAULT is always created. The PFL archive DEFAULT is connected to the external archive of the same name. After a restart, a PFL archive DEFAULT exists, which contains the documents locally on the master whereas the meta data of these documents are stored in the external archive.

## Configuration of an External Database System

### JDBC Driver

The access from Océ PRISMAproduction Server over Java and SQL statements to an external database system is performed via JDBC drivers. Basically it's not important which system is connected. Still it is required copy the JDBC driver of the respective database system into the Explorer directory /u/prismapro/lib/explorer/codebase and to perform a 'Reset Océ PRISMAproduction Server'.
For all database systems offered in the Océ PRISMAproduction Server configuration dialog JDBC drivers are provided, depending on the platforms and versions. You have to copy them into the above mentioned directory before you can use them.

### User

The configuration of users with access permissions and other system settings is different for every database system. To make a database user selectable, you have to create a new user in Océ PRISMAproduction Server. The external password, which is required in the dialog, is only valid for the external database and has no effect within Océ PRISMAproduction Server itself. A database user pfladmin is created by default.

### Design of the PFLEXT Database

It is very important that you create a database on the external database system with the exact name: PFLEXT. This database must have exactly the tables, fields and initializations as the SQL script for PostgreSQL below.
The SQL script '/u/prismapro/data/postgres/share/PFLEXT.postgres' creates the required tables and fields for the PFLTEXT database. This script does not work for other database types, for example because other databases use different names for data types.
Nevertheless this script should be a hint, how the PFLTEXT database can be used on other systems, after some modifications.

### Create table PFLDOCUMENT

### Create table PFLINFILE

### Create table PFLROOT

### Create table PFLMAXID

### Create index entries for fast database access

### Initialization, set start values for PFLMAXID

'INSERT INTO PFLMAXID VALUES ('o','o');'

### Hints for the data types used in PostgreSQL

| | |
|---|---|
| TEXT | Variable length character string without limitation |
| SMALLINT | Integer, 2 bytes |
| INT | Integer, 4 bytes |
| BIGINT | Integer, 8 bytes |

# 'Input Modules'

## 'Input Modules': Overview

### Introduction

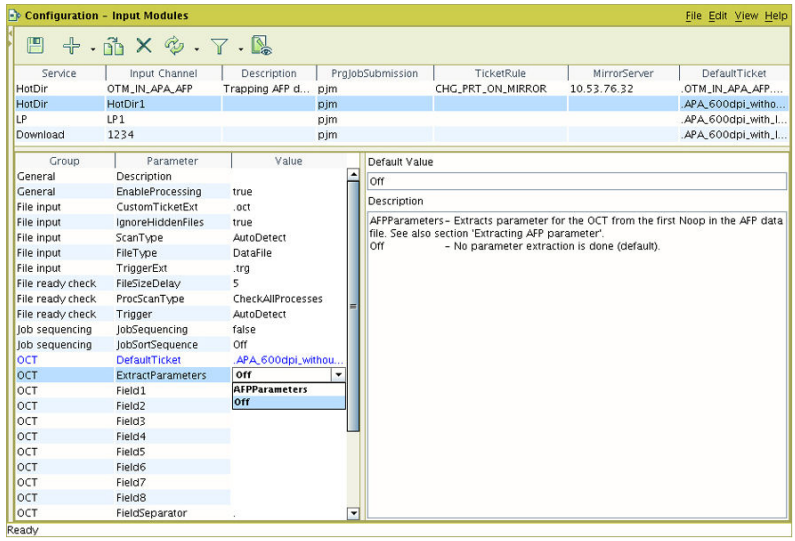
The Input Modules 'Download', 'HotDir' and 'LP' receive print jobs for the Océ PRISMAproduction Server print server. These jobs are processed, enhanced with server specific job information and spooled. The print jobs can be provided with information in order to control the print job.

*Note:*
The terms ’Input Modules’ and ’Input Channels’ are identical.

The 'Input Status' view shows the print jobs when they are being received, when they are submitted successfully or when an error occurred.

See chapter 'Input Status" in the Océ PRISMAproduction Server User's Guides.

## Illustration




## Overview on the Behavior and Features of the different Input Modules

| | *"Download"* on page 474 | *"HotDir"* on page 488 | *"LP"* on page 508 |
|---|---|---|---|
| Protocol | Proprietary from IBM | Indirectly, using FTP, NFS, SMB or by file copy, link or move | Standard, RFC1179 |
| Client software needed | Host Router from Océ or Download from IBM | Not explicitly necessary | Yes |
| Special Océ PRISMAproduction Server license needed | Yes | No | No |
| Data transmission re-start possible | Yes, using check pointing starting at the last correct checkpoint | Only when the used transfer protocol supports this | No |

| | | | |
|---|---|---|---|
| Receiving compressed data | Partly, decompression script is needed | Partly, decompression script is needed | Partly, decompression script is needed |
| Data file parameter extraction (= OCT control) | Supported for the AFP data format | Supported for the AFP data format | Supported for the AFP data format |
| Océ custom ticket (OCT) control | Limited, using JCL and User Exits on the MVS host | Full, using field names and / or by providing an OCT | Limited, using the LP control |
| Job mirroring (needs Interconnectivity license) | Can mirror data files on the fly or mirror with job submission | Job submission mirroring only | Job submission script is needed |

## Configuration

The configuration of the Input Module types 'Download', 'HotDir' and 'LP' has been combined in one configuration view called 'Input Modules'

In the upper window section an overview of the already defined input channels ('Download' ports, 'HotDir' directories and/or 'LP' printers) is displayed. The columns of the lower window show the main settings of the input channel(s).
After having selected one entry in the upper window the parameters of this input channel can be modified in the lower left window section. When a parameter is selected, the lower right window section shows the parameter defaults and a description.

**Input Modules Tool Bar**

| Icon | Description |
|---|---|
| Save | Save the Input Module changes. For each changed Input Module type a question pops up whether this Input Module is to be restarted.<br>Nothing happens when no changes have been made. |
| 'Create new Input Channel' | By clicking the main icon the same Input Module type is created as currently is selected.<br>By clicking the down arrow a pop up menu is shown where the Input Module type to be created can be selected. |
| 'Copy selected Input-Channel' | Create a copy of the currently selected input channel. |

| Icon | Description |
|---|---|
| 'Delete selected Input-Channel' | Delete the currently selected input channel. |
| 'Reload configuration' | By clicking the main icon, all changed Input Module configurations are discarded and the previous settings are reloaded.<br>By clicking the down arrow, a pop up menu is shown, where the changed Input Module types to be re-loaded can be selected. |
| 'Filter Services' | By clicking the main icon the filter will be applied for the currently selected Input Module type.<br>By clicking the down arrow, a pop up menu is shown, where the Input Module type to be used as filter can be selected. |
| 'Open PJM with selected Default Ticket' | Open the default ticket with the Print Job Manager. Please note the following points, when opening a default ticket:<br>■ Default tickets must not contain any print file names but file defaults!<br>■ Default tickets must be stored in the predefined directory ($JOBINPUT_TICKETS = u/prismapro/cfg/jobinput/ticket). Within this directory you can create one subdirectory.<br>■ Default tickets which are delivered with the system can be distinguished by the leading '.' in the file name. These tickets should not be modified, because they will be ignored by a configuration backup/restore and will be overwritten, if you update the system. These files serve as examples, which can be modified and saved under a different name without a leading '.'. |

The menu 'Edit' contains an additional entry: 'Edit global parameters'. If you select this entry, a dialog opens, which allows you to configure global parameters for each type of input channel. Such parameters are for example trace level and flags.

In the lower part the parameters are divided into groups to show which of these parameters belong together. The group column is used for this purpose. For Download the following groups are used:

| Group | Description |
|---|---|
| General | General 'Download', 'HotDir' or 'LP' parameters. |
| Data Input | Define the data structure of the input file. |
| Data Output | Define the data structure of the output file. |

| Group | Description |
|---|---|
| OCT | Define the job Control parameters. |
| Job Submission | Define job submission and job mirroring. |

## Extraction of OCT Parameters from Data File

One possibility to set Océ Custom Ticket (OCT) parameter is to write them into the data file and to extract them with the input modules. This feature offers you more control over printing the job. This works even if the transfer protocol (LP for example) doesn't give a possibility to pass these parameters. At the moment only parameters in the AFP data files are supported.
If multiple data files belong to one Océ PRISMAproduction Server job, each of these can have parameters which can set the file section OCT parameters individually. Be aware that not all file section parameters changes can be handled correctly in a multi file job. For the other OCT sections the first value found is taken. The values in the following data file(s) from the same job are ignored.
All parameters in the 'Specification PPS Job Ticket', sections 'job' and 'files' can be used, but you have to be aware, that not all parameters are suitable. An example is the parameter files.File=Filename because it is not known in which path the file is located after transmission.
The parameters are integrated without testing whether they are correct or not. In this case the user takes the responsibility. It the section is not specified, the parameter(s) are written into the 'userinfo' section. If you want to add your own parameter(s), it is strongly advised to put these into the 'userinfo' section.
Each Input Channel has the parameter 'ExtractParameter' which controls this feature. The following values are allowed:

- Off = No parameters are extracted from the data file(s)
- AFPParameters = Parameters are extracted from the beginning of the AFP NO'OP's data file.
- PCLParameters = Parameters are extracted from the beginning of the PCL data file.

## Default Job Ticket

The Default Ticket can be used to specify general Océ PRISMAproduction Server settings for an input channel. These tickets do not contain a file section ([file]). Instead, a file defaults section ([filedefaults]) exist.
The parameters defined in the file defaults section are used to specify defaults for all the data file(s) belonging to the job. These defaults are used unless they are overwritten by another parameter source.
The Default Tickets can be found in '/u/prismapro/cfg/jobinput/ticket'. Sub directories are allowed. Blanks are allowed in default ticket names, but it is suggested not to use blanks, these are difficult to handle in Job Submission scripts.
The delivered example Default Ticket names start with a '.' (dot). These tickets will be overwritten each time the RPM, which provides these tickets is installed. Even if a configuration backup has been performed, these 'dot tickets' are NOT saved. It is therefore strongly recommended to rename the tickets, if they are modified and the to omit the leading dot.
To edit or create the Default Ticket, the PJM icon can be used in the Input Modules tool bar.

## The Job Submission Script

*Note:*
Prefer to use the Ticket Rules application if it can replace the current Job Submission functionality. The use of the Job Submission script is slow and increases the risk of loosing a job if this script is not programmed properly.

*Note:*
Switch traces on to see how the input module calls the job submission script and to see the contents of the generated Oce Custom Ticket. For details see the chapter 'Generating a trace file'.

The print data files are received ('Download', 'LP') or detected ('HotDir') by the Input modules. As soon as the file is received correctly, the print job is submitted into the Océ PRISMAproduction Server spooler. An exception is the Download 'print while spooling' feature, where a print job is submitted before the complete data file is received. It is also

possible to specify grouped jobs where multiple data files are submitted as a single print job.
The print job submission is done by calling the 'pjm' program with the 'Default ticket', OCT and some other specified parameters. By specifying a script name instead of the 'pjm' executable, a special customer specific modification can be done.
The better way of customization is using the Ticket Rules to modify the parameters of the ticket during the 'pjm' submit process instead of a submit script.
Another possibility is to use a customization script, which calls the pjm program to submit the job, after the OCT modification or data file conversions are done. This is no longer neccessary if only ticket parameters have to be modified, as the TicketRules application provides a sure, maintainable, in the workflow well-documented and high performant solution for this task.

*Note:*
Be aware that during the execution of the customization script the HotDir Input Module daemon is waiting for the script to finish. The longer the script needs to be executed the higher the risk is to loose the print job. So please make it fast and short.

The customization script is called with the same parameters as the syntax of the job submission program. The scripts must be saved in the directory '/u/prismaproduction/cfg/jobinput/bin'. The syntax of the job submission program is:

'/u/prismapro/bin/pjm -t [Ticket] -oct [OCT] -force -id [JobId] -user [Username] -tr [TicketRule] -mirror [MirrorServer] -mp [MirrorPolicy] -mnd'

| Parameter | Description |
|---|---|
| -force | Always accept the job and spool it into the Océ PRISMAproduction Server spooler, even when minor errors occur. |
| -id [JobId] | The Océ PRISMAproduction Server job identifier. Don't change this parameter ! |
| -mirror [MirrorServer] | Name or IP-Address of the mirror server. Must be the same as specified in the Océ PRISMAproduction Server System configuration (dependent on the interconnectivity license). Parameter only exists when Input Channel has mirroring configured. |

| Parameter | Description |
|---|---|
| -mnd | Input Modules has mirrored the job data files already. The following PJM call will only exchange the job Ticket and activate the job with the correct status on both servers. This Parameter is dependent on the interconnectivity license. This Parameter only exists when it is configured for this Input Channel.<br>**WARNING**: Don't mirror the job data file with the Input Modules when the job submission script changes the data files. This causes problems when the job has to be printed on the mirror server! |
| -mp [MirrorPolicy] | Defines the error handling when the mirror server is not available. Parameter is dependent on the interconnectivity license. Parameter only exists when Input Channel has mirroring configured. "Mandatory": When job mirroring fails the job also fails on this Server "Optional": Job continues on this server even when the mirroring fails |
| -oct [OCT] | Name and path of the Océ Custom Ticket (OCT or job ticket). Any value in this ticket overrides the values in the default ticket. |
| -t [Ticket] | Name and path of the default ticket. Must be in a (sub-) directory of '/u/prismapro/cfg/jobinput/ticket/' |
| -tr [TicketRule] | Name of the ticket rule to be used when this job is submitted. This Parameter only exists when it is configured for this Input Channel. |
| -user [Username] | Name of the Input module name. This value must be a valid Océ PRISMAproduction Server system user. Using another value than specified below will cause problems. This parameter must have one of the following values:<br>Download daemon -> Download<br>HotDir daemon -> HotDir<br>LP daemon -> LP |

If no errors occur and the job is accepted by the Océ PRISMAproduction Server system, this script should have the return code 'o'. In all other cases the return code may be everything except the value 'o'. This will then cause the Input Module to encounter that an error has occurred and write an error message.

*Note:*
Be aware that incorrect implementation of this customization script can cause a loss of data files/jobs get lost.

The standard output and standard error from the script are normally read and when errors occur they are shown as part of the daemon error message. The message size of the script standard output and standard error is limited, so please use this with care. Not all daemons handle this correct yet, but will do this in the future.
It is also possible to write messages into the Océ PRISMAproduction Server message view by using the ppmsg program. See also chapter 'Command Line Interface' -> 'Messages' -> 'Send Messages' section in the Technical Reference Manual.

Syntax: 'ppmsg -m [Module] -j [Jobid] [MsgId] [Insert1] [Insert2] …'

| Parameter | Description |
|---|---|
| -m Module | Name of the message sender (for example the name of the script) |
| -j Jobid | Job identifier |
| MsgId | Message identifier, for static message text in scripts use the following message identifiers:<br>98000000 - Info type<br>98000001 - Warning type<br>98000002 - Error type<br>98000003 - Log entry<br>98000004 – Question<br><br>*Note:*<br>It is not recommended to use questions in an automated workflow, because this may lead to a number of problems). |

If the names or the path of the Default Ticket and the OCT contain blanks, special handling is needed especially for the job submission program 'pjm'.

*Note:*
Do NOT re-direct the output of the 'pjm' program. Otherwise the cause of the job submission problem cannot be seen in the user messages!
Also do not write too much text to the stdout or stderr file descriptors.
See 'LP Job Submission for Mirroring and Ticket Rules' chapter for LP mirroring and Ticket Rule examples.

For an example of the job submission script please see the file:
' /u/prismapro/cfg/jobinput/bin/.jobsub_example.script'

## Input Parameter to Info Pages Mapping

| IBM Option (LP) | MVS/JCI Parameter | (HotDir) OCT Parameter | Info Page Parameter |
|---|---|---|---|
| -oac, -oaccount | | receiver.Acc_Custom_Id | |
| -oaddress1 | ADDRESS | receiver.Rec_Street | ADDRESS1[2] |
| -oaddress2 | ADDRESS | receiver.Rec_ZIP | ADDRESS2[2] |
| -oaddress3 | ADDRESS | receiver.Rec_City | ADDRESS3[2] |
| -oaddress4 | ADDRESS | receiver.Rec_Country | ADDRESS4[2] |
| -obi, -obin | INTRAY, IBIN | job.intray | PDSIBIN |
| -obu, -obuilding | BUILDING | receiver.Rec_Building | BUILDING[2] |
| -occ | DCB=RECFM | originator.Sending_Param_-occ | |
| -occtype | DCB=RECFM | files.Pdscc | |
| -ocd, -ocdp, -ocod, -ocodepage[1] | | originator.Sending_Param_-occd originator.Sending_Param_-occdp originator.Sending_Param_-ocod originator.Sending_Param_-occdepage | |
| -ochars -OCHARS | CHARS, UCS | originator.Sending_Param_-OCHARS | FONTS |
| -ocop, -ocopies | COPIES | job.Copies | COPIES |
| -odatac, -odatack | DATACK | files.PDSDCK | |
| -odatat, -odatatype | | files.DataType | |
| -ode, -odepartment | DEPT | receiver.Rec_Company | DEPARTMENT[2] |

| IBM Option (LP) | MVS/JCI Parameter | (HotDir) OCT Parameter | Info Page Parameter |
|---|---|---|---|
| -odi, -odistribution[1] | | originator.Sending_Param_-odi originator.Sending_Param_-odistribution | |
| -odo, -odocname, -ojobn, -ojobname | JOB_NAME | job.Job_name | JOBNAME[2] |
| -odu, -oduplex | DUPLEX | files.Pdsduplx | PDSDUPLX[2] |
| -of, -oformdef | FORMDEF | files.Formdef | FORMDEF[2] |
| -OFILEFORMAT | | originator.Sending_Param_-OFILEFORMAT | |
| -oh, -oheader[1] | | originator.Sending_Param_-oh originator.Sending_Param_-oheader | |
| -oipdest | DEST=IP | | |
| -oin | | job.Intray | |
| -omsgc, -omsgcount[1] | | originator.Sending_Param_-omsgc originator.Sending_Param_-omsgcount | |
| -ona, -oname | NAME | receiver.Rec_Name | REC_NAME[2] |
| -ono, -onodeid | NOTIFY | userinfo.Notify | |
| -ooffxb | OFFSETXB | files.PdsOffXB | PDSOFFXB[2] |
| -ooffxf | OFFSETXF | files.PdsOffXF | PDSOFFXF[2] |
| -ooffyb | OFFSETYB | files.PdsOffYB | PDSOFFYB[2] |
| -ooffyf | OFFSETYF | files.PdsOffYF | PDSOFFYF[2] |
| -oou, -ooutbin | OUTBIN, OBIN | job.Outtray | PDSOBIN |
| -oov, -ooverlay | OVERLAYF | files.FrontSideOvls | FRONTSIDEOVLS |
| -oovlyb | OVERLAYB | files.BackSideOvls | BACKSIDEOVLS |

| IBM Option (LP) | MVS/JCI Parameter | (HotDir) OCT Parameter | Info Page Parameter |
|---|---|---|---|
| -opa class | CLASS<br>SYSOUT | originator.Sending_Param_class<br>job.Job_Class | HOST_CLASS[2]<br>QUEUE |
| -opa destination | DEST / QUEUE | originator.Sending_Param_-optr-queue | HOST_DEST[2] |
| -opa, -opassthru | | originator.Sending_Param_-opa<br>originator.Sending_Param_-opassthru | |
| -opa forms | FORMS<br>SYSOUT | job.Print_Form | FORM |
| -opa Job ID | JOB_ID | job.Reference_Id | REFERENCE_ID<br>REFERENID[2] |
| -opa segmentid | SEGMENT | | SEGMENT_ID[2] |
| -OPAGEDEF | | files.Pagedef | |
| -opr, -oprogrammer | | originator.Sending_Programmer_Name | |
| -oprmode -OPRMODE | PRMODE | userinfo.PR_Mode | PR_MODE[2] |
| -oresp, -orespath[1] | | originator.Sending_Param_-oresp<br>originator.Sending_Param_-orespath | |
| -oro, -oroom | ROOM | receiver.Rec_Room | ROOM[2] |
| -osep, -oseparator[1] | | originator.Sending_Param_-osep<br>originator.Sending_Param_-oseparator | |
| -osfo, -orchfo , -orchfontlib[1] | | originator.Sending_Param_-osfo<br>originator.Sending_Param_-orchfo<br>originator.Sending_Param_-orchfontlib | |

| IBM Option (LP) | MVS/JCI Parameter | (HotDir) OCT Parameter | Info Page Parameter |
|---|---|---|---|
| -oti, -otitle | TITLE | originator.Sending_Title | TITLE[2] |
| -otr, -otrailer[1] | | originator.Sending_Param_-otr originator.Sending_Param_-otrailer | |
| -otrc | DCB=OPTCD=JTRC | files.Pdstrc | PDSTRC |
| -ous, -ouserid | USERID | originator.Sending_User | HOST_USER[2] |
| -oxo, -oxoffset[1] | | originator.Sending_Param_-oxo originator.Sending_Param_-oxoffset | |
| -oyo, -oyoffset[1] | | originator.Sending_Param_-oyo originator.Sending_Param_-oyoffset | |
| | PORT | originator.Receiving_Input_Channel | PORT_NUMBER[2] |
| | PRTQUEUE | job.Printer_Name | DESTINATION[2] |
| | RESFMT | Job.DPI | RESOLUTION[2] |

Notes:
[1] Not supported by Océ PRISMAproduction Server.
[2] LCDS Info pages supported parameter.

See the document "Print Services Facility MVS: MVS Download Guide" for a full description of the various parameters.

The Info pages keywords are only valid for the AFP Driver (SPS V4) and the IPDS Driver (SPS V5). With these keywords defined in an Info page template the parameter values will be printed on the info page. Other backends have their own keywords documented.
LCDS Module: Parameters marked with "[2]" are supported by LCDS in the sense, that the Download parameter are passed through to the spooljob in order to be available to be printed on SPS banner pages. These supported parameters are the general parameters

like ADDRESS etc.. Naturally the APA special parameters like FormDef / PageDef are not supported, because they are not used by the LCDS module.
Hint for REFERENCE_ID / REFERENID. For LCDS REFERENCE_ID has always been the reference from the print spool job to the ODS_ID of the converter job, which has produced the print job(s). To be able to print the MVS Job_ID on SPS banner page, please use the LCDS only parameter REFERENID.

# 'Download'

## Introduction

The 'Download' Input Module (license dependent) makes it possible to receive print jobs from the MVS Host using the TCP/IP network. To send the data on the MVS Host the software product **Océ PRISMAproduction Server Host Router** from Océ Printing Systems GmbH or the software product **PSF MVS Download** from IBM can be used.
The simplest use case is to send a single data file as job to the Océ PRISMAproduction Server server. The 'Download' header is used to extract parameters for the OCT (See 'Parameter to OCT Conversion' for details) and to submit the job to the spool. Additionally it is possible to extract parameters from an AFP print data file and to use these to modify the OCT.
It is also possible to send grouped jobs (a job contains multiple data files). These can then be submitted as one job or each print data file separate as one job. For details see the 'Download' configuration.

## General

### Parameter Priority

The Océ Custom Ticket (OCT) parameters are defined by several sources. When multiple sources define the same parameter the source priority defines which value is taken. The following parameter sources and priorities exist (priority increases from left to right):

Default Ticket -> Data file parameter -> Download header parameter

With the Download configuration parameter 'TicketParameterPriority' the priority of the AFP No'op and the Download header parameters can be changed.

### Unknown or Customer Specific Parameters

Unknown or customer specific parameters can be added using the AFP No'ops (see chapter 'Extracting AFP parameters') or by using the Download-User Exit. The syntax of the parameter must be as follows:

SECTION.PARAMETER=VALUE

where 'SECTION' is defined as the OCT section, the 'PARAMETER' as the parameter in this section and the 'VALUE' the value this parameter should be set to.
The character '=' is not allowed as part of the value.
See MVS manuals for more information about Download-user Exits.

### Compressed/encrypted data stream

When on the MVS system the Océ PRISMAproduction Server Host Router (from now on called Router) product is used it is possible to send compressed data to the Océ

PRISMAproduction Server server. For this setup a special configuration for the MVS as well as the Download daemon is needed. Also some restrictions exist at the moment, which are listed below. Please refer to the Router manual for the settings needed on the MVS system.
The following download configuration settings must be set to the specified values:

| Download configuration parameter | Value |
|---|---|
| JobSequencing | NO |
| OutputDataStructure | NoRDW |
| PrgJobSubmission | .download_unzip.script |

Restrictions:

At the moment restrictions exist when receiving compressed download data. In future releases most of these restrictions will disappear.
Currently the following restrictions exist:

- No mixed data (AFP and linedata in the same data file) is supported.
- The AFPparameters, the special parameters in the first AFP No'op, can not be read by the download daemon.
- The AFPTrim feature cannot be used so that the download daemon removes trailing bytes after the AFP record.
- No Job grouping and Job sequencing is supported.
- It is not possible to generate output with the IBM RDW.

### LCDS Data

When a LCDS data stream is received the Parameter 'OutputDataStructure' should be set to the value 'PassThrough'. The tickets starting with '.LCDS_' are example default tickets (DefaultTicket) for this data stream. See the LCDS documentation for more details.

## Parameter to OCT Conversion

The following table shows the MVS JCL and Download header to Océ Custom Ticket (OCT) parameter conversion:

### MVS-Download Parameter Mapping Table

| MVS/JCL-Parameter | PRISMA Ticket | Default | Values | Description |
|---|---|---|---|---|
| ADDRESS1 | receiver.Rec_Street | - | | Address1-text |

| MVS/JCL-Parameter | PRISMA Ticket | Default | Values | Description |
|---|---|---|---|---|
| ADDRESS2 | receiver.Rec_ZIP | _ | | Address2-text |
| ADDRESS3 | receiver.Rec_City | _ | | Address3-text |
| ADDRESS4 | receiver.Rec_Country | _ | | Address4-text |
| BUILDING | receiver.Rec_Building | _ | | building-text |
| CHARS / UCS | files.Fonts | use Printer Default | | Chars – up to 4 Font names for Linedata |
| CKPTSEC | _ | No Checkpoints | | Seconds between checkpoints |
| CLASS | userinfo.Host_Class => job.Job_Class | A | 1 char | Host Job Class => switchable mapping in PRISMA-Job_Queue |
| COPIES | job.Copies | 1 | 1-255 | copy-count |
| DATACK | _ | BLOCK | {BLOCK \| UN-BLOCK \| BLKCHAR \| BLKPOS} | Reporting of print-positioning and character errors |
| DCB=OPTCD=J / TRC | files.Pdstrc | NO => 0 | YES \| NO => 1 \| 0 | table-reference-characters |
| DCB=RECFM | files.Pdscc | _ | {A \| M} | carriage-control-type |
| DEPT | receiver.Rec_Company | _ | | department-text |
| DEST / QUEUE | userinfo.Host_Dest | _ | | printer-pass-through – Destination Name |
| DEST=IP | userinfo.Host_Dest=IP | _ | | printer-pass-through – IP address or Name |
| DUPLEX | files.Pdsduplx | use Formdef value | | sides and plex |
| FORMDEF | files.Formdef=F1 | use System Default | | form-definition |
| FORMS | job.Print_Form | | | printer-pass-through – Form Name |
| INTRAY / IBIN | job.Intray | use Formdef value | | printer-pass-through – Paper Tray ID (1-255) |

| MVS/JCL-Parameter | PRISMA Ticket | Default | Values | Description |
|---|---|---|---|---|
| JOB_ID | job.Reference_Id | _ | | MVS-Job ID |
| JOB_NAME | job.Job_name | _ | | MVS Job Name |
| NAME | receiver.Rec_Name | _ | | name-text |
| NOTIFY | userinfo.Host_Notify | _ | | user IDs whom Download notify |
| OFFSETXB | files.PdsOffXB | use Formdef value | | x-image-shift back side |
| OFFSETXF | files.PdsOffXF | use Formdef value | | x-image-shift front side |
| OFFSETYB | files.PdsOffYB | use Formdef value | | y-image-shift back side |
| OFFSETYF | files.PdsOffYF | use Formdef value | | y-image-shift front side |
| OUTBIN / OBIN | job.Outtray | use Formdef value | 2 | output-bin |
| OVERLAYB | files.BackSideOvls | use Formdef value | | overlay back side |
| OVERLAYF | files.FrontSideOvls | use Formdef value | | overlay front side |
| PAGEDEF / FCB | files.Pagedef=P1 | use System Default | | page-definition |
| PORT | userinfo.Port_Number | _ | | Download Port |
| PR / PROGRAMER-NAME | userinfo.Program-mer_Name | | | programmer-text |
| PRMODE | userinfo.PR_Mode | JES | { SOSI1 \| SOSI2 \| SOSI3 \| aaaaaa } | shift-out-shift-in |
| PRTQUEUE | job.Printer_Name | _ | | print queue name |
| RESFMT | job.DPI | | {P240\|P300} | font-resolution |
| ROOM | receiver.Rec_Room | | | room-text |
| SEGMENT | _ | no segmentation | | Not transmitted – page count to segment data |
| SEGMENTID | userinfo.Segment_Id | _ | | number to indicate the position of the seg-ment |
| SYSOUT | _ | | | printer-pass-through – alternative param for Class and Form |

| MVS/JCL-Parameter | PRISMA Ticket | Default | Values | Description |
|---|---|---|---|---|
| TITLE | userinfo.Title | _ | | title-text |
| USERID | infoinfo.Host_User | | | MVS-Job Creator |

*Note:*
Not used parameters are omitted in the list. See the document "Print Services Facility MVS: MVS Download Guide" for a full description of the various parameters.

## Configuration

For a description of the 'Input Modules' configuration window see *'Input Modules': Overview'* on page 460.

### Global Download Parameters

In the menu bar global Download parameters can be set in a dialog. To open this dialog press the items 'Edit' -> 'Edit global parameters' -> 'Download'. The following parameters can be set. The bold values are the default values.

| Parameter | Possible values | Description |
|---|---|---|
| Connection Time-out | **300**<br><Number> | Network connection time out in seconds. The value 0 disables this feature, so no time out will occur (not recommended). |
| Maximum Client Connections | **0**<br><Number> | The maximum number of simultaneous client connections for the daemon. The value 0 disables this feature, so that no limit is set. |
| Trace channel | **0**<br><Download port number> | Defines the port where application socket traces are made. To enable this the 'Trace flags' must have at least the following flag set 0x00000200. The value 0 disables this feature. |
| Trace flags | **ffffoof8**<br><offffffff> | Defines the detail level of the trace file. See also the 'Trace channel' and the 'Trace level' parameter. |

| Parameter | Possible values | Description |
|---|---|---|
| Trace level | **0**<br><1-4> | Defines the detail level in the trace file. When trace level is 0 error traces are still being written. Also, dependent of the Trace Flags, data traces can still be written. |

**General Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| Description | <Any character String> | The description of the Download port. |
| PortMaxClient Connections | **0**<br><Number> | The maximum number of simultaneous client connections for this port. The value 0 disables this feature, so that no limit is set. |

**Data Input Parameter**

| Parameter | Possible values | Description |
|---|---|---|
| EbcdicHeader Conversion | **SEB243V1** ->  Use the EBCDIC SEB243V1 character set.<br>SEB243V1+IfsToSpace -> Use the EBCDIC SEB243V1 character set with the special IFS to space conversion.<br>IBM-CP_V10500 -> Use the EBCDIC IBM CP_V10500 character set | Defines the Download header conversion table from EBCDIC to ASCII. This is needed for the Océ Custom Ticket and the INFO pages. |

**Data Output Parameter**

| Parameter | Possible values | Description |
|---|---|---|
| OutputDataS-tructure | AddCRLF -><br>Add CRLF as record delimiter.<br>AddCRLF_WithAFPTrim -><br>Add CRLF as record delimiter with AFP record trim.<br>NoRDW -><br>Remove record length field (compressed data).<br>PassThrough -><br>Leave the input data file as it is (LCDS data stream).<br>VAR -><br>Use the IBM format RDW (Variable record, 4 byte) as record delimiter.<br>**VAR_WithAFPTrim** -><br>Use the IBM format RDW (Variable record, 4 byte) as record delimiter with AFP trim. | Specifies the data structure of the output file. |

**OCT Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| DefaultTicket | “” or <File name> | Name of the default ticket to be used for job submission. |
| ExtractParame-ters | AFPParameters -><br>Extracts parameters for the OCT from the first No'op in the AFP data file.<br>**Off** -><br>No parameter extraction is done. | See also chapter ‘Extracting AFP parameters’ in *‘Input Modules': Overview’* on page 460. |

| Parameter | Possible values | Description |
|---|---|---|
| TicketParameterPriority | MVSHeaderOverwritesNoopParameter -> MVS/Download header parameters overwrite the AFPParameter in the Noop of the data file(s). **NoopParameterOverwritesMVSHeader** -> The AFPparameters from the Noop overwrite the MVS/Download header parameters. | Defines the ticket parameter source priority. |
| StartMVSClass | 0 <Number, min. 0, max. 950> | First Océ PRISMAproduction Server queue which is used as base to add MVS alphabetical class value to it. |

**Job Submission Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| JobSequencing | **No** -> Each data file of the grouped job is submitted as a separate job, the sequence of these is NOT defined. SEQ_ONLY -> Serialized data file receiving. Each data file is submitted as a separate job, the file/job sequence is kept. SEQ+GROUP -> Each grouped job is submitted as a single job with multiple data files. | Specifies how grouped jobs are submitted. |

| Parameter | Possible values | Description |
|---|---|---|
| Mirror-DataFile | **Yes** ->
Mirror data file(s) with Download while receiving them (on the fly).
No ->
Mirror data file(s) during the job submission when mirroring is defined for this port. | Defines the time when the data files are mirrored. To be able to use this feature the Interconnectivity license is needed and the MirrorServer must be defined for this port.<br><br>*Note:*<br>Set this parameter to 'No' when a job submission script is used in which data file manipulation steps are done. |
| MirrorPolicy | **Mandatory** ->
A job is not accepted on this server when it can not mirror the job.
Optional ->
A job will always be accepted independent of the mirror job status. | Defines the job acceptance on this server when the mirror server doesn't accept the job. To be able to use this feature the Interconnectivity license is needed and the MirrorServer must be defined for this port. |
| MirrorServer | ""
<IP Address> | Name or IP address of the mirror server. Only available when the 'Interconnectivity' license exists and the mirror server is defined in the Océ PRISMAproduction Server System Configuration |
| PrgJobSubmission | **pjm**
<Another executable script or binary > | This program or script is used to submit the job into the Océ PRISMAproduction Server system. See section 'The job submission' in *'Input Modules': Overview'* on page 460. |

| Parameter | Possible values | Description |
|---|---|---|
| TicketRule | “”<br><String> | Name of the Ticket rule to use when the job is submitted. The Ticket Rule must be defined in the Océ PRISMAproduction Server Ticket Rule Configuration first before it can be selected in the list. |

# 'Download': Behavior in Error Situations

## Introduction

The behavior of the 'Download' daemon in case of an error depends on the situation to make sure that the least interference of the normal workflow is achieved. This section explains, what happens, if a certain situation occurs.
The port will be closed in case of an error, only if job sequencing is used for a port and a 'grouped' job is send from the mainframe. In all other cases the job will be saved internally by the 'Download' daemon.
Internally saved jobs can be re-submitted by enabling the port (after it has been previously disabled) in the Input Status View. Also a daemon reset causes these jobs to be re-submitted.

*Note:*
The data files which have not been submitted, are removed from the system after 3 days to prevent the hard disk from filling up.

## Generating a trace file

The trace file is generated by the 'Download' daemon and shows the function call sequences as well as main values of used variables. This file can be used by the development department to solve an error in the 'Download' daemon. To create a trace file, select menu 'Edit' -> 'Edit global parameters' -> 'Download' in the Océ PRISMAproduction Server 'Input Modules' configuration window and change the following parameters:

| Parameter | Value | Description |
|---|---|---|
| Trace channel | 0<br><Download Port> | Defines the port where application socket traces are made. The value 0 disables this feature. Also the trace flags must have at least the 0x00000200 flag set. |
| Trace flags | 0xfff1cf9<br>0xfff1cfb<br>0xfff1efb | Traces are written with performance information; no print data files are collected (Standard trace).<br>Traces as well as data files are collected (Data trace).<br>Traces, data files as well as data socket traces are made (Socket data trace). Set the parameter 'Trace Channel' to the port from which the Socket Data Trace is to be captured. |
| Trace level | 4 | Highest trace level |

The 'Download' daemon saves only one previous copy of the trace file. Older trace files are deleted. With each 'Download' reset or Océ PRISMAproduction Server reset a new 'Download' trace file is created. Data trace files however are not overwritten and must be deleted manually when they are not needed anymore.
Even if the lowest trace level 0 is used, errors are always written. So if an error occurs and the trace level is 0, this trace file still contains traces, so please also save this file and send it in with the trace files which are additionally created.
If the traces have been created and the error can be reproduced, **prismadiag** can be used to collect the information.

*Note:*
Beware of the hard disk space when data traces are written. Data traces generally are very large and generate a large number of files.

When traces are written the following files can be found in the '/u/prismapro/diag/download' directory:

| | |
|---|---|
| <JobId>_pjm_cmd.out | The command used to call the job submission script. |
| All_ISS_* | The protocol of the Input Status View command exchange. |
| All_PJM_* | The protocol of the PJM socket commands. |
| Download_Data-Trace_* | Socket data trace file |
| dnld_<jobid>_* | The data file(s) belonging to the job. |
| dnld_<jobid>_<port no>.oct | The job specific Oce custom ticket to control the print job. |
| download.err*, download.log* | The 'Download' daemon error and log files. |

Dependent of the trace flags set, not all of these files is created.

## Trace Level and Flags details

This chapter is only useful for users who want to know more details. In most cases the options described in the previous chapter will be sufficient.
'Download' has a trace level and trace flags which control the behavior on how the trace file is written. Using theses levels and flags, it is possible to control the amount of data and when the data is written.
The flags are used bit wise, which means each trace flag mode can be set separately.
Normally the TraceLevel should be set to 3 or 4 to get enough trace details, this will produce large traces.

### Trace level

The trace level can be set from 0 to 4. Each level higher produces more detailed information and includes all the information of the lower levels:

| Level | Level Name | Description |
|---|---|---|
| 0 | Error messages | Only when errors occur. |
| 1 | Section messages | Main section enter/exit info. |
| 2 | Function messages | Function enter/exit with return code info |
| 3 | Info messages | Important variables/information |
| 4 | Detail messages | Detailed variables and other information (Large Trace File !) |

### Trace Flags

The trace flags are used to control the behavior of the trace file/Input-Filter. The following trace flags are available:

| Special Flags | Name | Description |
|---|---|---|
| 0x00000001 | Performance | Collects special performance information and writes this into the trace file. |
| 0x00000002 | Copy I/O data | Creates a copy of the output files in the diag directory. |
| 0x00000004 | Error only flag | Only when errors occur trace info is written into the trace file. This includes also traces which happen just before the error occurs. |
| 0x00000008 | Time flag | Time info is added for each trace line. |
| 0x00000010 | Section flag | Program section and source code id./class are added for each trace line. |
| 0x00000020 | Buffer trace flag | The trace info is buffered until the buffer is full and then written to the trace file. By NOT setting this bit the trace information is written line by line to the trace file (lower performance). |
| 0x00000100 | Buffer data trace | When this flag is set a buffer data trace is written. |
| 0x00000200 | Socket data trace | When this flag is set an application socket data trace is written. |

| Special Flags | Name | Description |
|---|---|---|
| 0x00000400 | Input Status trace | When set it writes the Input Status protocol trace |
| 0x00000800 | PJM protocol trace | When set it writes the PJM protocol trace |
| 0x00001000 | PJM cmd trace | When set it writes for each PJM command a separate file with the used parameters. |

# 'HotDir'

## Introduction

The 'HotDir' Input Module makes it possible to submit print files automatically into the Océ PRISMAproduction Server print system. Special directories are monitored if there are new data files and checked if these data files are complete (transmission is finished).
The data can be transferred via the network using FTP. Also mounted directories are supported such as NFS and SMB. When the data file is already on the Océ PRISMAproduction Server server they can be copied, linked or moved to these Hot Directories.
For Microsoft Windows the add-on tool 'HotDirWinClient' can be used to submit the job using ftp or a mounted network drive. See the 'HotDirWinClient' chapter for more details (see *'HotDirWinClient'* on page 504). For this tool only limited support exists.

## Operation

The data files can be provided in four different ways. Each of these ways allows a different amount of Ticket / print job control.

Here is an overview of the possible variations and the effects they have (the corresponding parameter names are written in parentheses):

**Data file**

| File Effects | |
|---|---|
| Single data file job | Yes |
| Multiple data files job | No |
| Data file(s) must be specified | No |
| Multiple data files sequence control | - |
| Ticket or print job control | Using fieldnames (Field1-Field8) |
| Incomplete data file submission can occur when | Process crashes or Network mounts are used |

**OCT**

| File Effects | |
|---|---|
| Single data file job | Yes |

| File Effects | |
|---|---|
| Multiple data files job | Yes, using subdirectories |
| Data file(s) must be specified | No. In OCT, only when a special sequence of the data files is needed |
| Multiple data files sequence control | - By specifying sequence in OCT or<br>- By activating a sort algorithm (DataFileSortSequence) |
| Ticket or print job control | Using OCT and / or fieldnames (Field1-Field8) |
| Incomplete data file submission can occur when | Process crashes or Network mounts are used |

**Trigger file**

| File Effects | |
|---|---|
| Single data file job | Yes |
| Multiple data files job | Yes, using subdirectories |
| Data file(s) must be specified | No |
| Multiple data files sequence control | By activating the sort algorithms (DataFileSortSequence) |
| Ticket or print job control | Using fieldnames (Field1-Field8) |
| Incomplete data file submission can occur when | None, as long as the trigger file is only written when previous steps were successful |

**OCT & Trigger file**

| File Effects | |
|---|---|
| Single data file job | Yes |
| Multiple data files job | Yes, using subdirectories |
| Data file(s) must be specified | No, only when a special sequence of the data files is needed |
| Multiple data files sequence control | - By specifying sequence in OCT or - By activating a sort algorithm (DataFileSortSequence) |

| File Effects | |
|---|---|
| Ticket or print job control | Using OCT and / or fieldnames (Field1-Field8) |
| Incomplete data file submission can occur when | None, as long as the trigger file is only written when previous steps were successful |

The best way to submit the data file(s) into the Océ PRISMAproduction Server system is to use trigger files. This prevents the submission of incomplete data files caused by crashing programs or failing networks. It also reduces the 'HotDir' overhead because no check is needed to see if a file is still being transferred.
If the Ticket or print job control is also required, the OCT and Trigger file combination can be used.
The disadvantage of the trigger file is that an additional file needs to be created after the (data) file or OCT has been written successfully. This can be done by a script, on Microsoft Windows using a batch file, or by using the 'HotDirWinClient'. For more details on the last option see section 'A Windows file submission tool for HotDir'.
The directories which the 'HotDir' daemon monitors are named as defined in the HotDir configuration and located as subdirectories of the path '/u/hotdir/'.
If you want to group multiple data files to a single print job, you can use either an OCT only or a trigger file or you can use both. With each of these possibilities, the data files belonging to a print job must be located in a sub-directory and the OCT and/or Trigger file must have the same name as this sub-directory plus the used file name extension for each.

**Example** for a job with multiple data files using an OCT:

- Directory: 12345
- Data file1: 12345/file1
- Data file2: 12345/file2
- OCT: 12345.oct

An Océ Custom Ticket (OCT) may contain only the needed print job parameters. The file name entries are only necessary if a special data file sequence is needed (which cannot be achieved with an alphabetical or numerical sort algorithm) or if for each data file different parameters are necessary (in the file section). It is not allowed to specify only a few, but not all data files belonging to this job.

*Note:*
Be aware that the path specified in the OCT for the data files is ignored. The data file name is used together with the sub-directory name as is described above.

It is also possible to specify fields in the data filename. The field is then used as value for the section and keyword in the OCT which is specified in the HotDir configuration. The field termination character can be changed to allow a more flexible usage. It is also possible to ignore or skip a certain field.
When a multi-data-file job is used with field names and these fields are assigned to global (not file specific) section and keyword, only the first value found is read. The other values are ignored. When a file specific section and keyword is specified however, it is possible to specify different values for each data file of the grouped print job. A combination of an OCT and field names is allowed.
Another possibility to control the print job can be used if AFP data are sent. Parameters can be extracted from the first noop of the data file by the HotDir program and put into the OCT.
When a certain OCT section and keyword value is provided by more than one source the following priority rule is used to define which value is used (the highest number wins): 1) Default ticket -> 2) Data file parameter extraction -> 3) OCT -> 4) File name parameters

## Configuration Examples

**Windows Explorer and 'HotDir'**

When multiple data files are copied or moved at the same time to a 'HotDir' directory a special handling is needed to print these jobs in the same sequence. The cause of the problem is that the explorer doesn't pass the filenames in the same sequence with which these are selected or shown. In the solutions it is assumed that the HotDirWinClient is used with a shared HotDir directory.

The possible solutions are:

- The data files have to be printer in alphabetically or numerical order and Océ PRISMAproduction Server shows one grouped job.
  Configure the HotDirWinClient as follows:
  <path>/HotDirWinClient.exe MultiFile=Grouped TransType=SMB <Target>
  Configure 'HotDir':
  FileType=Data+TriggerFile, DataFileSortSequence=AlphaNumerically or Alphabetically, JobGrouping=GroupedFileJobs
- The data files have to be printer in alphabetically or numerical order and Océ PRISMAproduction Server shows single data file jobs.
  Configure the HotDirWinClient as follows:
  <path>/HotDirWinClient.exe MultiFile=Grouped TransType=SMB <Target>
  Configure 'HotDir':
  FileType=Data+TriggerFile, DataFileSortSequence=AlphaNumerically or Alphabetically, JobGrouping=SingleFileJobs

## Parameter to OCT Conversion

Each of the input modules has its own internal variable names which are mapped to Ticket section keywords. The following table describes the mapping of these variable names.

| Hot Directory FieldName Parameters | Océ PRISMAproduction Server Ticket Parameter Section & Keyword | Default | Parameter Description / Comments |
|---|---|---|---|
| Carriage Control Char | files.Pdscc | - | carriage control character type |
| Catalog | job.Catalog | | Customer catalog, e. g. for LCDS |
| File Copies | files.File_Copies | 1 | file copy count. DL, LP: used for jobs consisting of multiple files (job grouping) |
| Form | job.Print_Form | | form name |
| Format | files.Format | | file type defining the process service to be called |
| Formdef | files.Formdef=F1 | use System Default | form definition |
| Input Tray | job.Intray | use Formdef value | paper tray ID (1-255) |
| JDE Name | files.JDE_Name | | LCDS start command: Job Description Entry |
| JDL Name | files.JDL_Name | | LCDS start command: Job Definition Language |

| Hot Directory FieldName Parameters | Océ PRISMAproduction Server Ticket Parameter Section & Keyword | Default | Parameter Description / Comments |
|---|---|---|---|
| Job Copies | job.Copies | 1 | job copy count.<br>DL, LP:<br>used for single data file jobs |
| Job Name | job.Job_name | - | MVS job name |
| Job Queue | job.Job_Class | - | job queue number.<br>DL:<br>switchable class mapping |
| Job Type | job.Job_Type | | POD \| APA \| LCDS \| OLDS \| Native |
| Layout | files.Layout | | |
| Number of Pages | files.Pages | | |
| Output Tray | job.Outtray | use Formdef value | output-bin |
| Page Sequence | files.Pdsduplx | use Formdef value | sides and plex |
| Pagedef | files.Pagedef=P1 | use System Default | page-definition |
| Paper Size | files.Paper_Size | | |
| Print Mode | job.Print_Mode | | |
| Printer Name | job.Printer_Name | - | print queue name |
| Reference ID | job.Reference_Id | - | MVS job ID |
| Resolution [DPI] | job.DPI | | font-resolution |
| Substitute | files.Substitute | | |
| Table Reference Char | files.Pdstrc | NO => 0 | print data contains table reference characters |

## Configuration

For a description of the 'Input Modules' configuration window see *'Input Modules': Overview'* on page 460.

### Global HotDir Parameters

In the menu 'Edit' select 'Edit global parameters' -> 'HotDir' to open a dialog, which allows you to configure the following parameters. Bold values are default values:

| Parameter | Possible values | Description |
|---|---|---|
| Scanning Interval | **5000**<br><Number, minimum 1000> | Directory scan interval in milliseconds. |
| Delete if older than | **0** | (Not used) Delete files older than days. Disabled when set to 0. |
| Trace flags | **0xffff00f8** | See 'Generating a trace file' for details. |
| Trace level | **0** | See 'Generating a trace file' for details. |

### General Parameters

| Parameter | Possible values | Description |
|---|---|---|
| Description | <Any character String> | The description of the Hot Directory. |

### File Input Parameters

| Parameter | Possible values | Description |
|---|---|---|
| ScanType | **AutoDetect** ->  Automatically uses the correct directory scan type of the following two:<br>NormalDirectoryScan ->  Scans the directory in a normal way.<br>FastDirectoryscan ->  Scans directories by using the directory file time, doesn't work for mounted or exported directories. | Directory scan type. |

| Parameter | Possible values | Description |
|---|---|---|
| FileType | **DataFile** -><br>A data file is to be submitted as a single print job.<br>Data+OCTFile ->><br>One or more (sub-directory!) data files together with an OCT are submitted as a print job. The OCT must be sent as the last file.<br>Data+TriggerFile ->><br>One or more (sub-directory!) data files together with a trigger file are submitted as a single job. The trigger file must be created as the last file.<br>Data+OCT+TriggerFile ->><br>One or more (sub-directory!) data files together with an OCT and a trigger file are submitted as a print job. The trigger file must be created as the last file. | Defines what kind of job information is provided for the job. |
| TriggerExt | **.trg**<br><Any character String> | The file name extension of the trigger file. |

**File Ready Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| FileSizeDelay | **5**<br><Number> | The delay in seconds which is waited after the file doesn't grow in size anymore, before the file is marked as being complete. Is used only when the keyword Trigger is set to the value AutoDetect or FileSizeExtendedCheck. |

| Parameter | Possible values | Description |
|---|---|---|
| ProcScanType | **CheckAllProcesses** | Checks all running processes if they have opened the file (found in the monitored directory). Is used only when the keyword Trigger is set to the value AutoDetect or ProcessOpenFileCheck. |
| Trigger | **AutoDetect** -> Automatically uses the correct File ready trigger type. When the HotDir is mounted it uses the 'FileSizeExtendedCheck' otherwise the 'ProcessOpenFileCheck'. This value doesn't work for exported directories. FileSizeExtendedCheck -> Checks if the file size increases. When this doesn't happen for the amount of seconds defined with the keyword FileSizeDelay (and some other checks) the file is marked as being complete. ProcessOpenFileCheck -> Checks if the file (found in the monitored directory) is still opened by a running process. See the keyword ProcScanType which defines which processes are checked. | Select the File ready trigger type. |

**Job Sequencing Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| JobGrouping | SingleFileJobs<br>GroupedFileJobs | Specifies how grouped jobs are submitted. |

| Parameter | Possible values | Description |
|---|---|---|
| JobSortSequence | **Off** -><br>No file sorting is done.<br>Alphabetically ->The files are sorted alphabetically using the system locale and submitted using this sequence.<br>Alphanumerically ->The files are sorted alphanumerically and submitted in this sequence. Leading zeros are NOT needed. Example of a sorted sequence: 1, 2, 10, 12, 100.<br>FileTimeStamp ->The time the file is created is used to define the sequence of the jobs. Since the accuracy of this value is in seconds, the job creation must be at least one second apart. | Uses the (last) file specified with the keyword FileType for eventual sorting.<br><br>*Note:*<br>The Alphabetically and Alphanumerically sorting algorithyms are used together with the FileTimeStamp. First the files are sorted using the FileTimeStamp, when more than one has the same timestamp the selected sorting algorithym is used. |

**OCT Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| DefaultTicket | <File name><br>Field1-Field8 | Name of the default ticket to be used for job submission or Use the content of the defined filename field. |
| ExtractParameters | AFPParameters ->Extracts parameters for the OCT from the first No'op in the AFP data file.<br>**Off** ->No parameter extraction is done.<br>PCLParameters ->Parameters are extracted from the beginning of the PCL data file. | See also section 'Extracting AFP parameters' in *'Input Modules': Overview'* on page 460. |

| Parameter | Possible values | Description |
|---|---|---|
| Field1-Field8 | <Section.Keyword> | Better use the TicketRules for this functionality, here it will be disabled in the future.<br>Defines which field value is assigned to which OCT keyword in the specified section.<br>Using the FieldSeparator the filename is divided into fields. Each of these fields can be assigned to a keyword in a defined section. For using a field to set the default ticket see the DefaultTicket parameter description. |
| FieldSeparator | '.' | The field separator which is used to divide the data filename into fields. See also Field1-Field8.<br>Default is the dot. |
| DataFileSortSequence | **Off** ->\<br>Files are written in the OCT in the sequence they are found in the directory.<br>Alphabetically ->\<br>The files are sorted alphabetically using the system locale and written into the OCT in this sequence.<br>Alphanumerically ->\<br>The files are sorted alphanumerically and submitted in this sequence. Leading zeros are NOT needed. Example of a sorted sequence: 1, 2, 10, 12, 100.<br>FileTimeStamp ->\<br>The time the file is created is used to define the sequence of the files in the jobs. Since the accuracy of this value is in seconds, the file creation must be at least one second apart. | Determines the sequence of the data files in the job. Used only for jobs with multiple data files, if no data files are specified in the OCT or when a trigger file is used. |

| Parameter | Possible values | Description |
|---|---|---|
| StartMVS-Class | **0**<br><Number, min. 0, max. 950> | First PRISMAproduction queue which is used as base to add MVS alphabetical class value to it. |

### Job Submission Parameters

| Parameter | Possible values | Description |
|---|---|---|
| MirrorPolicy | **Mandatory** ->A job is not accepted on this server when it can not mirror the job.<br>Optional ->A job will always be accepted independent of the mirror job status. | Defines the job acceptance on this server when the mirror server doesn't accept the job. To be able to use this feature the Interconnectivity license is needed and the MirrorServer must be defined for this port. |
| MirrorServer | ""<br><IP Address> | Name or IP address of the mirror server. Only available when the 'Interconnectivity' license exists and the mirror server is defined in the Océ PRISMAproduction Server System Configuration |
| PrgJobSubmission | **pjm**<br><Another executable script or binary > | This program or script is used to submit the job into the Océ PRISMAproduction Server system. See section 'The job submission' in *'Input Modules': Overview'* on page 460. |
| TicketRule | ""<br><String> | Name of the Ticket rule to use when the job is submitted. The Ticket Rule must be defined in the Océ PRISMAproduction Server Ticket Rule Configuration first before it can be selected in the list. |

# 'HotDir': Behavior in Error Situations

## Introduction

Dependent on the situation, the behavior of the 'HotDir' daemon in error situations is to make sure that the least interference of the normal workflow is achieved. This section explains what happens when a certain situation appears.

**The default ticket is not found**

The default ticket is specified in the 'HotDir' configuration file. In this case all print jobs will have the same problem, therefore this 'HotDir' directory will be closed. A message appears that the Default Ticket is not found.
The default ticket is specified as part of the data file name (field names). In this case the problem is print job specific, therefore this print job is moved into the 'HotDir' error directory (see section 'Re-submission of error jobs' for more details) and a message is displayed.

**No Job identifier is provided by the Océ PRISMAproduction Server system**

In this case the 'HotDir' daemon waits until it gets a correct Job identifier.

**Job Submission problems occur**

When after a few retries the jobs still could not be submitted, 'HotDir' directory is closed and a message is displayed. Normal print job processing for the other directories continues.

**Job submission problems when a blank exists in filename or path**

If a customization script is used to check that the job submission call parameter has the correct syntax "$@". See section 'The Job Submission Script' in *'Input Modules': Overview' on page 460* for details.

**Re-submission of error jobs**

To re-submit error jobs, solve the problem and enable the HotDir directory in the Input Status View. Also a HotDir reset can be used to re-submit these jobs.

## Generating a trace file

The trace file is generated by the 'HotDir' daemon and shows the function call sequences as well as main values from variables which are used. This file can be used by the development department to solve an error in the 'HotDir' daemon. To create a trace file, select 'Edit' -> 'Edit global parameters' -> 'HotDir' in the Océ PRISMAproduction Server 'Input Modules' configuration window and change the following parameters:

| Parameter | Value | Description |
|---|---|---|
| Trace flags | 0xfff1cf9<br>0xfff1cfb | Traces are written with performance information; no print data files are collected (Standard trace).<br>Traces as well as data files are collected (Data trace). |
| Trace level | 4 | Highest trace level |

The 'HotDir' daemon only saves one previous copy of the trace file. Older trace files are deleted. With each 'HotDir' reset or Océ PRISMAproduction Server reset a new 'HotDir' trace file is created. Data files however are not overwritten and must be deleted manually when they are not needed anymore.
Even if the lowest trace level 0 is used, errors are always written. So if an error occurs and the trace level is 0, this trace file still contains traces, so please also save this file and send it in with the trace files which are additionally created.
If the traces have been created and the error can be reproduced, prismadiag can be used to collect the information.

*Note:*
Beware of the hard disk space when data traces are written. Data traces generally are very large and generate a large number of files.

When traces are written the following files can be found in the '/u/prismapro/diag/hotdir' directory:

| | |
|---|---|
| <JobId>_<filename> | The data file to be printed |
| <JobId>.oct | The job specific Oce custom ticket created by 'HotDir'. |
| <JobId>_original.oct | The customer supplied Oce custom ticket. |
| <JobId>_pjm_cmd.out | The command used to call the job submission script. |
| All_ISS_* | The protocol of the Input Status View command exchange. |
| All_PJM_* | The protocol of the PJM socket commands. |
| hotdir.err*, hotdir.log* | The 'HotDir' daemon error and log files. |

Dependent of the trace flags set and the type of HotDir configured, not all of these files is created.

## Trace Level and Flags details

This chapter is only useful for users who want to know more details. In most cases the options described in the previous chapter will be sufficient.
'HotDir' has a trace level and trace flags which control the behavior on how the trace file is written. Using theses levels and flags, it is possible to control the amount of data and when the data is written.
The flags are used bit wise, which means each trace flag mode can be set separately.
Normally the TraceLevel should be set to 3 or 4 to get enough trace details, this will produce large traces.

### Trace level

The trace level can be set from 0 to 4. Each level higher produces more detailed information and includes all the information of the lower levels:

| Level | Level Name | Description |
|---|---|---|
| 0 | Error messages | Only when errors occur. |
| 1 | Section messages | Main section enter/exit info. |
| 2 | Function messages | Function enter/exit with return code info |
| 3 | Info messages | Important variables/information |
| 4 | Detail messages | Detailed variables and other information (Large Trace File !) |

### Trace Flags

The trace flags are used to control the behavior of the trace file/Input-Filter. The following trace flags are available:

| Special Flags | Name | Description |
|---|---|---|
| 0x00000001 | Performance | Collects special performance information and writes this into the trace file. |
| 0x00000002 | Copy I/O data | Creates a copy of the output files in the diag directory. |
| 0x00000004 | Error only flag | Only when errors occur trace info is written into the trace file. This includes also traces which happen just before the error occurs. |
| 0x00000008 | Time flag | Time info is added for each trace line. |

| Special Flags | Name | Description |
|---|---|---|
| 0x00000010 | Section flag | Program section and source code id./class are added for each trace line. |
| 0x00000020 | Buffer trace flag | The trace info is buffered until the buffer is full and then written to the trace file. By NOT setting this bit the trace information is written line by line to the trace file (lower performance). |
| 0x00000100 | Buffer data trace | When this flag is set a buffer data trace is written. |
| 0x00000200 | Socket data trace | When this flag is set an application socket data trace is written. |
| 0x00000400 | Input Status trace | When set it writes the Input Status protocol trace |
| 0x00000800 | PJM protocol trace | When set it writes the PJM protocol trace |
| 0x00001000 | PJM cmd trace | When set it writes for each PJM command a separate file with the used parameters. |

# HotDirWinClient

## Introduction

The 'HotDirWinClient' is a Windows file submission tool.
To better integrate the MS Windows Operating System with the Océ PRISMAproduction Server print server, the 'SendTo' menu item of the Windows Explorer can be used. This menu pops up if you select one or more files in the Windows Explorer and click them with the right mouse button. The 'Send To' menu has a sub-menu.
By extending the sub-menu with entries, which allows the user to transfer data to the Océ PRISMAproduction Server HotDir directory, it is very easy to submit print jobs. Behind this sub-menu entry is a shortcut, which calls the program 'HotDirWinClient' which takes care of interpreting the specified parameters and transferring the specified file names to the Océ PRISMAproduction Server HotDir directory.

See also the HotDir description in *"HotDir"* on page 488.

## Overview

The 'HotDirWinClient' program can be used in a batch file/script file, or as a post process from a data converter/data generation program. If the Windows Explorer is used to submit the data files to the Océ PRISMAproduction Server server, the Explorer 'SendTo' menu item can be configured.
The 'SendTo' directory is located under 'Documents and Settings\<User name>' on the partition where the windows operating system is installed. There is also the directory 'All Users', which is for used for configuration entries for all users. If the 'SendTo' directory does not exist, you have to create it. Create a link to the HotDirWindowsClient in this directory. Open the link with the right mouse button and click on 'Properties'. On the 'Shortcut' tab the path and name of the HotDirWinClient.exe in the 'Target' text field should be extended with the needed options. The 'Start in' value should be set to the directory where the HotDirWindowsClient program is located.

**Example** configuration of the 'SendTo' shortcut:

- Tab 'General': Océ HotDir (Mount) DataOnly
- Tab 'Shortcut', Keyword 'Target':"C:\Program Files\Oce\inputmodules\exe\HotDirWinClient.exe" MultiFile=Grouped TransType=SMB N:\tmp\hdtest01
- Tab 'Shortcut', 'Keyword 'Start in': "C:\Program Files\Oce\inputmodules\exe"

## Features of the 'HotDirWinClient' Program

- The data can be transferred using the ftp protocol instead of shared/mapped folders. This reduces network overload (less shared/mapped folders) and load on the Océ PRISMAproduction Server server.
- You can specify an OCT, which is automatically sent after the data is copied/transferred.
- When multiple files are selected and JobSequencing is set to 'grouped', a subdirectory is created where the selected data files are copied/transferred to.
- If JobSequencing is set to 'FileTime', the needed one-second delay is automatically put between each transferred data file.

The jobs are always generated using a trigger file, which is created after each job when the copy process/data transfer was successful. A small trace file is written every time the 'HotDirWinClient' is used.

## Usage

The syntax of the 'HotDirWinClient' command is as follows:

'HotDirWinClient.exe [Sequence=...] [MultiFile=...][OCT=...] [TransType=FTP|SMB] [<Target>] <Data-files>'

The items in square brackets ([]) are optional, the items in <> must be specified.

| Parameters | Description |
|---|---|
| Sequence | Specifies how single and multiple data files are handled. Be aware that the sequence, in which the data files are selected, is not the same sequence as the files are provided as parameter for the 'HotDirWinClient'. The following options are valid:<br>**FileTime**: A delay of one second is put between each copied/transferred data file. This makes it possible for the HotDir daemon to use the data file time to submit the jobs in the correct sequence. See HotDir configuration for other solutions of this sequencing problem.<br>**None** (Default): No special data file handling is done by the HotDir windows client. HotDir can be configured to sort the files the alphabetically or alphanumerically. |

| Parameters | Description |
|---|---|
| MultiFile | Specifies what needs to be done when multiple data files are selected. The possible options are:<br>**Grouped**: All data files are grouped and submitted as a single job.<br>**Single** (Default): Each data file is submitted as a separate job. |
| OCT | Specifies the Oct to be used with this job. The possible options are:<br>**<OCT file>**: The name (with or without path) of the OCT file to be used=<OCT-file>. When no path is provided the OCT has to be in the current folder.<br>**<Empty>**: When no value is specified, the OCT is one of the selected files. This file must have the extension '.oct'. |
| TransType | Specifies the data transfer type. The following options are valid:<br>**FTP**: The data is transferred using the ftp protocol. No shared/mapped folders are needed.<br>**SMB** (default): A shared/mapped folder is needed to be able to submit the print jobs. |
| Target | Specifies where the data file must be copied/transferred too. This can be defined in the command line, or as value from parameters … in the OCT. The meaning of the value depends on the TransType setting. Possible options:<br>**<Path>**: SMB only: Specifies target directory where data files must be created or copied to.<br>**<Server>,<User>,<Passwd>:<Remote directory>**: FTP only: Specifies Océ PRISMAproduction Server server to connect to, remote user, password and the remote directory where to put the data. |

If the option 'TransType=FTP' is set, the 'Target' option specifies the FTP server where the data are sent. If the username and the password are empty (Target=<Server>,,:<Remote directory>) 'anonymous' is used as username, the password is set to the e-mail address of the user.
Once the combination FTP server, user, password is used, the password can be removed because the MS Windows operating system stores this.

## Configuration

The receiving HotDir directory must be configured with the option 'FileType= Data+TriggerFile' if no Océ Custom Ticket (OCT) is sent with the data or with the option 'FileType= Data+Oct+TriggerFile' if an OCT is sent with the data.
First copy the HotDirWinClient.exe program from the Océ PRISMAproduction Server software CD in the directory '\tools_win\HotDir to the directory C:\Program Files\Oce\inputmodules\exe'. Then create a new short-cut of the 'HotDirWinClient' program and put it in the directory 'C:\Documents and Settings\<user>\SendTo'. The '<user>' part must be replaced with the user(s) who use this feature. In the shortcut tab the target must be set to the 'HotDirWinClient' path and the needed options. The selected file names are added to this command line when the menu item is executed.
When the HotDir server is configured and running on the Océ PRISMAproduction Server server, it should be possible to send print jobs.

# 'LP'

## Introduction

The line printer protocol, also known as LP, is a standard way of sending data to a printer. The standard is defined in the RFC 1179 and allows printer sharing between several computer and/or operating systems in a network.
The Océ PRISMAproduction Server LP package is designed to replace the traditional UNIX LP package and spools the print jobs into the Océ PRISMAproduction Server spool. This package allows creating jobs using the standard LP client software delivered with all UNIX and Windows systems. Also MVS mainframe clients exist.
The LP printers are logical printers which can be mapped to a real printer using the 'Default Ticket'. See the Configuration section below for details.

**Parameter priority**

The Océ Custom Ticket (OCT) parameters are defined by several sources. When multiple sources define the same parameter the source priority defines which value is taken. The following parameter sources and priorities exist (priority increases from left to right):

Default Ticket -> Data file parameter -> LP control file

*Note:*
When the LP control file Job or File Copies parameter is not set or has the value '1' the data file parameter will overwrite this.

*Note:*
The reference Job Id and the Job name from the data file will always overwrite the LP control file values. This can cause problems when job actions are requested from this job using the lp clients (lpq, lprm).

**HP Unix client**

When using a HP Unix client select, in the LP configuration the value 'Remote printer is on a BSD system', using the 'sam' utility.

## Enable Printer Access

Printing from a client to an LP printer defined on the Océ PRISMAproduction Server server must be configured. This is done in the 'hosts.lpd' which can be started from the menu 'Edit' using the entry 'Edit hosts.lpd'.
A dialog pops up with a menu bar, icon and a table with 2 columns. In the 'Allowed systems' column clients can be entered so that they can print to an LP printer. The 'Comment' column is used for a description of the entry.
The name of a client can be written with wildcards to be able to allow multiple IP addresses to be enabled.
**Examples**: '160.120.10.*', '160.*'. To allow all clients to have access to the LP printer use the single wildcard ('*').

*Note:*
To allow the local LP clients to send jobs to the LP Daemon add the entry 'localhost'!

## Utilities

The Océ PRISMAproduction Server LP package contains the following utilities (use '/u/prismapro/bin' as path):

| Utility | Description |
|---|---|
| '/u/prismapro/bin/lpr' | Creates a print job. |
| '/u/prismapro/bin/lprm' | Deletes a print job from the Océ PRISMAproduction Server print spool. |
| '/u/prismapro/bin/lpq' | Shows a limited set of information on the LP print jobs. |
| '/u/prismapro/bin/lpc' | Controls the Océ PRISMAproduction Server LP print environment |

*Note:*
The LINUX manual pages for lp (for example 'man lp' or 'man lpr') are not valid when Océ PRISMAproduction Server is not installed. Use the sections described here instead.

## Submitting a Print Job with"lpr"

The 'lpr' command is used to submit a print job using the 'LP' protocol. The job can be send to a (local or remote) Océ PRISMAproduction Server LP-daemon (LPD) or to another inplementation of a LPD.
The 'lpr' command implements the 'LP' protocol as it is defined, if the receiving daemon supports all of these options that is dependent on it's implementation. The Océ PRISMAproduction Server LPD does not implement the '-I' and the '-w' options.
Syntax :
'/u/prismapro/bin/lpr [-# <job copies>] [-C <class>] [-D] [-i <n>] [-J <jobname>] [-K file copies] [-m <mail>] [-o <option>] -P <printer> [@<host>:<port>] [-T <Title>] [-U <user>] [-w <width>] <file(s)> /u/prismapro/bin/lpr -V'

| Operator | Description |
|---|---|
| -# | Set number of job copies: each file is printed before the next copy is printed (Optional) |
| -C | Set class string (Optional, max. 300 characters) |
| -D | Switch debugging on (Optional, trace is written into file '/u/prismapro/diag/lp/lpr.log') |
| -i | Ident output by n characters (Optional, not supported by the Océ PRISMAproduction Server LPD) |
| -J | Set job name (Optional) |
| -K | Set number of file copies: the number of copies of one file are printed first before the next file is printed (Optional) |
| -m | Send notification mail to <mail> (Optional) |
| -o | Set options, can be use multiple times (Optional)<br>Example: -oOpt=1<br><br>*Note:*<br>Be aware that keywords as listed in the table 'IBM specific OCT conversion' (see below) are automatically converted as OCT parameter as described in this table (Example: -obu=building2). |
| -P | <printer> LP printer <host> LPD host (Optional) <port> LPD port (Optional) |
| -T | Set job title (Optional) |
| -U | Set user, only allowed for root (Optional) |

| Operator | Description |
|---|---|
| -w | Set output width (Optional, not supported by the Océ PRISMAproduction Server LPD) |
| -V | Lpr version |

Normally the 'lpr' (lpr -P <printer>) is used to send a job to the local Océ PRISMAproduction Server LPD. If the job has to be forwarded to a remote LPD the generic lp backend is used. If the data needs to be passed as it is the Océ PRISMAproduction Server data type 'Raw Mode' has to be used. In this workflow the job can be monitored with the Océ PRISMAproduction Server Explorer.

**Example** (local LPD):

'/u/prismapro/bin/lpr -P PS700 -J report22 -#3 /u/printjobs/report22'

This command sends the local print file '/u/printjobs/report22' to the print server that is configured for logical printer PS700, and generates a print job with the given job name. Three copies of the job will be printed.
When the 'lpr' command is used to send a job to a remote LPD (lpr -P <printer>@<host>)none of this can be seen on the Océ PRISMAproduction Server explorer. This workflow is needed when special LP parameters (other than filename) need to be passed to the remote LPD. It is planned in the future to support here also the Océ PRISMAproduction Server workflow.

Example (remote LPD):

'/u/prismapro/bin/lpr -P PS700@PrintServer -J report22 -#3 /u/printjobs/report22'

This command sends the local print file '/u/printjobs/report22' to the print server name PrintServer that is configured for logical printer PS700, and generates a print job with the given job name. Three copies of the job will be printed.

| Lpr Option | Internal LP Parameter | OCT Parameter | Description |
|---|---|---|---|
| -# <number> | Multiple entries or # | job.Copies | Job copies (Default 1) |
| -C <number> | C | job.Job_Class | Job queue (when number > 0 and < 999) |
| -C <string> | C | originator.Sending_Param_C | Job class |
| -i <number> | I | originator.Sending_Param_I | Ident spaces (Not supported) |

| Lpr Option | Internal LP Parameter | OCT Parameter | Description |
|---|---|---|---|
| -J <string> | J | job.Job_name | Job name |
| -K <number> | K | files.File_Copies | File copies |
| -m <string> | M | job.Active_Notification | (Mail) notification |
| -o <keyword>= <value> | | Originator.Sending_Param_O<nnnn> | Special options |
| -P <printer> | | originator. Receiving_Input_Channel | LP printer name |
| -T <string> | T | originator.Sending_Title | Job title |
| -U <string> | P | originator.Sending_User | Remote user |
| -w <number> | W | originator.Sending_Param_W | Page width (Not supported) |

In case of an error the following return codes and messages are used:

- Unknown LP parameter
- LP parameter value problem
- LP socket connection problem
- Internal LP client problem occured
- Problem occurred during executing command

## Getting Spool Queue Information with"lpq"

The 'lpq' command is used to get job details of the LP jobs in the Océ PRISMAproduction Server spool. By specifiying the LP printer name all jobs are seen which are submitted to this printer. By using the 'all' keyword all LP jobs can be seen. The command can be used for local LP printers (lpq -P <printer>) as well as remote printers (lpq -P <printer>@<host>)

*Note:*
(when the Océ PRISMAproduction Server LPD processed the command): The 'lpq' command only shows Jobs which are submitted from the same node as the 'lpq' command is executed. Be aware that when a 'Network Address Translation Table' (NAT) is used between the lp-clients and the LPD all the computer systems behind the NAT are seen as one node! This means that all these nodes can see each other LP jobs and also can delete these (see description of the lprm command).

Syntax:
' /u/prismapro/bin/lpq [-D] -P<printer> [@<host>:<port>] [-l] /u/prismapro/bin/lpq -V'

| Operator | Description |
|---|---|
| -D | Switch debugging on (Optional, trace is written into file '/u/prismapro/diag/lp/lprm.log') |
| -P | <printer> = LP printer<br><host> = LP host (Optional)<br><port> = LPD port (Optional) |
| -l | Long status information (Optional) |
| -V | Lpq version |

The output of the 'lpq' command is determined by the LPD implementation which 'answers' the request. The following output examples are the output which is generated by the Océ PRISMAproduction Server LPD.

**Output example**: '/u/prismapro/bin/lpq -P lptesto1' (short format):

| Hostname | Owner | R.Id | JobId | Job Name | Copies | Status | Size Files |
|---|---|---|---|---|---|---|---|
| nn752257.0 | root | 705 | 68325527 | SIT-RBT600 | 1 | wait 680K | /fat_i/bugs_d |
| nn752257.0 | root | 708 | 68325528 | 600dpi_wit | 1 | wait 952 | /etc/hosts |
| nn752257.0 | root | 709 | 68325529 | 600dpi_wit | 1 | wait 952 | /etc/hosts |
| nn752257.0 | root | 710 | 68325530 | 600dpi_wit | 1 | wait 952 | /etc/hosts |

In case of an error the following return codes and messages are used:

- Unknown LP parameter
- Problem connecting to LPD server
- Problem occurring executing LP command

## Cancel Print Jobs with "lprm"

The 'lprm' command is used to cancel a LP print job in the Océ PRISMAproduction Server spool. To specify the job which needs to be canceled the LP printer as well as the Océ PRISMAproduction Server job Id must be specified. The command can be used for local LP printers (lprm -P <printer>) as well as remote printers (lprm -P <printer>@<host>). Since the functionality of the cancel job is implemented in the LPD, it

depends on this implementation if the command works properly or not. The 'lprm' command only creates a valid LP request and waits for a return code.

*Note:*
(when the Océ PRISMAproduction Server LPD processed the command): The 'lprm' command only can cancel Jobs which are submitted from the same node as where the 'lprm' command is executed. Be aware that when a 'Network Address Translation Table' (NAT) is used between the lp-clients and the LPD all the computer systems behind the NAT are seen as one node! This means that all these nodes can see each other LP jobs and also can delete these.

Syntax:
' /u/prismapro/bin/lprm [-D] -P<printer>[@<host>:<port>][-U<user>] <JobId>
/u/prismapro/bin/lprm -V'

| Operator | Description |
|---|---|
| -D | Switch debugging on (Optional, trace is written into file '/u/prismapro/diag/lp/lprm.log') |
| -P | <printer> = LP printer<br><host> = LP host (Optional)<br><port> = LPD port (Optional) |
| -U | Specify user, root only (Optional) |
| <JobId> | Océ PRISMAproduction Server Job Id to be deleted |
| -V | Lprm version |

**Example**: '/u/prismapro/bin/lprm -P lptesto1 oooooooo1'

In case of an error the following return codes and messages are used:

- Unknown LP parameter
- LP socket (connection) problem occurred
- Problem occurring executing LP command

## Control Function"lpc"

The LP control client 'lpc' only allows the user to enable a LP printer. This has the same effect enabling the printer in the 'Input Status View'. By using the 'all' keyword instead of the printer name all LP printers will be enabled.
The 'enable' printer functionality is also the only official lpc sub-command which is defined in the LP protocol. Additional functionality provided by other lpc implementations use none official ways to provide this functionality.

Syntax:
'u/prismapro/bin/lpc [-D] enable <printer>[@<host>:<port>] /u/prismapro/bin/lpc -V'

| Operator | Description |
|---|---|
| -D | Switch debugging on (Optional, trace is written into file '/u/prismapro/diag/lp/lpc.log') |
| enable | Enable LP printer to receive jobs |
| <printer> | LP printer or keyword 'all' for all LP printer |
| <host> | LPD host (Optional) |
| <port> | LPD port (Optional) |
| -V | Lpc version |

**Example**: '/u/prismapro/bin/lpc enable lptesto1'

In case of an error the following return codes and messages are used:

- Unknown LP parameter
- Problem connecting to LPD server
- Problem occurring executing LP command

## LP Daemon

The LP Daemon (LPD) receives local or remote jobs using the LP protocol. This means that it must be able to communicate with other LP clients as well as other LP daemon implementations. Since the LP protocol is not accurately defined, a lot of variations of the protocol exist. Most of the time this is also the cause of the LP problems.

*Note:*
MS Windows: The 'LPR byte counting enabled' check box by the printer port configuration is no longer needed. This speeds up spooling the print job.

### LP Protocol to OCT Conversion

| Internal LP-Parameter | OCT Parameter | Description |
|---|---|---|
| Multiple entries or # | job.Copies | Job copies (Default 1) |
| C | job.Job_Class | Job queue (when number > 0 and < 999) |
| C[1] | originator.Sending_Param_C | Job class |
| I[1] | originator.Sending_Param_I | Ident spaces (Not supported) |
| J | job.Job_name | Job name |
| M | job.Active_Notification | (Mail) notification |
| [1] | Originator.Sending_Param_O<nnnn> | Special options |
| | originator.Receiving_Input_Channel | LP printer name |
| T | originator.Sending_Title | Job title |
| P | originator.Sending_User | Remote user |
| W[1] | originator.Sending_Param_W | Page width (Not supported) |

[1] Not supported by Océ PRISMAproduction Server

### IBM Specific OCT Conversion

| IBM Option | OCT Parameter | Description and limitations |
|---|---|---|
| -oac, -oaccount | receiver.Acc_Custom_Id | Accounting information |
| -oaddress1 | receiver.Rec_Street | Specifies address string |
| -oaddress2 | receiver.Rec_ZIP | Specifies address string |
| -oaddress3 | receiver.Rec_City | Specifies address string |
| -oaddress4 | receiver.Rec_Country | Specifies address string |
| -obi, -obin | job.intray | Determines output bin. Range 1-255 |
| -obu, -obuilding | receiver.Rec_Building | Name of the building |

| IBM Option | OCT Parameter | Description and limitations |
|---|---|---|
| -OCHARS[1] | originator.Sending_Param_-OCHARS | |
| -occ | originator.Sending_Param_-occ | See '-occtype' and '-otrc' |
| -occtype | files.Pdscc | '-occ=yes' and '–occtype=a' then 'Pdscc=1'<br>'-occ=yes' and '–occtype=m' then 'Pdscc=2'<br>'-occ=yes' and '–occtype=o' then 'Pdscc=4'<br>'-occ=yes' and '–occtype=x' then 'Pdscc=8'<br>'-occ=no' then Pdscc=16, Pdstrc=0 |
| -ocd, -ocdp, -ocod, -ocode-page[1] | originator.Sending_Param_-occd<br>originator.Sending_Param_-oc-cdp<br>originator.Sending_Param_-ocod<br>originator.Sending_Param_-oc-cdepage | ASCII input codepage values: 437, **850**, 860 (Portuguese) , 863 (French Canadian), 865 (Nordic) |
| -ocop, -ocopies | job.Copies | Specifies the number of copies of the job.<br>Range **1**-255 |
| -odatac, -odat-ack | files.PDSDCK | Determines what type of errors create error messages.<br>Values: **block**, blkchar, blkpos, unblock |
| -odatat, -odatatype | files.DataType | Specifies the type of data stream.<br>Values: **as(cii)**, af(pds), db(csascii), d(itroff), gif, jpeg, l(ine), mo(dcap), pc(l), pdf, p(o)s(tscript), ppml, sap, tiff |
| -ode, -odepart-ment | receiver.Rec_Company | Specifies department name.<br>Max. 90 characters |
| -odi, -odistribu-tion[1] | originator.Sending_Param_-odi<br>originator.Sending_Param_-odistribution | Specifies distribution name.<br>Max. 90 characters |

| IBM Option | OCT Parameter | Description and limitations |
|---|---|---|
| -odo, -odoc-name, -ojobn, -ojob-name | job.Job_name | Specifies document or job name. Max. 90 characters |
| -odu, -oduplex | files.Pdsduplx | Specifies is the job prints on one or both sides and how the pages are ordered. Values: y(es), **n(o)**, t(umble) |
| -OFILEFOR-MAT | originator.Sending_Param_-OFILEFORMAT | Value: record |
| -of, -oformdef | files.Formdef | Specifies the name of the form which is used for the job. |
| -oh, -oheader[1] | originator.Sending_Param_-oh originator.Sending_Param_-oheader | Specifies if a start page is printed before the job. Values: **y(es)**, n(o) |
| -oin | job.Intray | Specifies the job input tray |
| -omsgc, -omsg-count[1] | originator.Sending_Param_-omsgc originator.Sending_Param_-omsgcount | Specifies the maximum number of messages printer. Range: 0-**9999** |
| -ona, -oname | receiver.Rec_Name | Specifies name. Max. 90 characters |
| -ono, -onodeid | userinfo.Notify | Node id information. Max. 20 characters |
| -ooffxb | files.PdsOffXB | Specifies X-offset on backside of page |
| -ooffxf | files.PdsOffXF | Specifies X-offset on frontside of page |
| -ooffyb | files.PdsOffYB | Specifies Y-offset on backside of page |
| -ooffyf | files.PdsOffYF | Specifies Y-offset on frontside of page |
| -oou, -ooutbin | job.Outtray | Output tray, Range: **1**-65535 |
| -oov, -ooverlay | files.FrontSideOvls | Specifies the name of the overlay printed on every page of the job. Between 1 – 8 characters. |

| IBM Option | OCT Parameter | Description and limitations |
|---|---|---|
| -OPAGEDEF | files.Pagedef | |
| -opa, -opassthru | originator.Sending_Param_-opa originator.Sending_Param_-opassthru | Additional user information provided with the job. Name=value,name=value,… -FORMS, -CLASS, -DESTINATION. –SEGMEN-TID |
| -OPRMODE | userinfo.PR_Mode | |
| -opr, -oprogrammer | originator.Sending_Programmer_Name | Programmer name. Max. 40 characters |
| -oresp, -orespath[1] | originator.Sending_Param_-oresp originator.Sending_Param_-orespath | Specifies search order for Advanced Function Printing resources. |
| -oro, -oroom | receiver.Rec_Room | Specifies room name. Max. 90 characters |
| -osep, -oseparator[1] | originator.Sending_Param_-osep originator.Sending_Param_-oseparator | Specifies if separator pages are printed between the job copies. Values: **y(es)**, n(o) |
| -osfo, -orchfo, -orchfontlib[1] | originator.Sending_Param_-osfo originator.Sending_Param_-orchfo originator.Sending_Param_-orchfontlib | Specifies one or more path which are searched for fonts required by the job. |
| -otrc | files.Pdstrc | '-occ=yes' and '–otrc=yes' then Pdstrc=1 '-occ=yes' and '–otrc=no' then Pdstrc=0 '-occ=no' then Pdstrc = 0 |
| -oti, -otitle | originator.Sending_Title | Specifies the job title. Max. 90 characters |
| -otr, -otrailer[1] | originator.Sending_Param_-otr originator.Sending_Param_-otrailer | Specifies whether trailer page is printed. Values: **y(es)**, n(o) |
| -ous, -ouserid | originator.Sending_User | Specifies the user name. Max. 20 characters |

| IBM Option | OCT Parameter | Description and limitations |
|---|---|---|
| -oxo, -oxoffset[1] | originator.Sending_Param_-oxo originator.Sending_Param_-ox-offset | Specifies the X offset of the pages. nnn.nnn[i\|m] i-inch, m–millimeter, **pels** (without .) |
| -oyo, -oyoffset[1] | originator.Sending_Param_-oyo originator.Sending_Param_-oy-offset | Specifies the Y offset of the pages. nnn.nnn[i\|m] i-inch, m–millimeter, **pels** (without .) |

## LP Daemon Configuration

For a description of the 'Input Modules' configuration window see *''Input Modules': Overview'* on page 460.

### Global LP Parameters

In the menu bar global LP parameters can be set in a dialog. To open this dialog click the following items: 'Edit' -> 'Edit global parameters' -> 'LP'. The following parameters can be set. The bold values are the default values.

| Parameter | Possible values | Description |
|---|---|---|
| Connection Timeout | **300** <Number> | Network connection time out in seconds. The value 0 disables this feature, so no time out will occur (not recommended). |
| Maximum Client Connections | **0** <Number> | The maximum number of simultaneous client connections for the daemon. The value 0 disables this feature, so that no limit is set. |
| Port | **515** <Number> | LP Daemon port on which it receives jobs. |
| Trace channel | **0** <LP port number> | Defines the port where application socket traces are made. To enable this the 'Trace flags' must have at least the following flag set 0x00000200. The value 0 disables this feature. |
| Trace flags | **ffffoof8** <offffffff> | Defines the detail level of the trace file. See also the 'Trace channel' and the 'Trace level' parameter. |

| Parameter | Possible values | Description |
|---|---|---|
| Trace level | **0**<br><1-4> | Defines the detail level in the trace file. When trace level is 0 error traces are still being written. Also, dependent of the Trace Flags, data traces can still be written. |

**General Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| Description | <Any character String> | The description of the LP printer. |

**Data Output Parameter**

| Parameter | Possible values | Description |
|---|---|---|
| OutputDataStructure | AddCRLF ->\nAdd CRLF as record delimiter.\nAddCRLF_WithAFPTrim ->\nAdd CRLF as record delimiter with AFP record trim.\nNoRDW ->\nRemove record length field (compressed data).\n**PassThrough** ->\nLeave the input data file as it is (LCDS data stream).\nVAR ->\nUse the IBM format RDW (Variable record, 4 byte) as record delimiter.\nVAR_WithAFPTrim ->\nUse the IBM format RDW (Variable record, 4 byte) as record delimiter with AFP trim. | Specifies the data structure of the output file. |

**OCT Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| DefaultTicket | "" or <File name> | Name of the default ticket to be used for job submission. |
| ExtractParameters | AFPParameters -><br>Extracts parameters for the OCT from the first No'op in the AFP data file.<br>**Off** -><br>No parameter extraction is done.<br>PCLParameters -><br>Parameters are extracted from the beginning of the PCL data file. | See also chapter 'Extracting AFP parameters' in *'Input Modules': Overview'* on page 460. |
| TicketParameterPriority | MVSHeaderOverwrites NoopParameter -><br>MVS/Download header parameters overwrite the AFPParameter in the Noop of the data file(s).<br>**NoopParameter OverwritesMVSHeader** -><br>The AFPparameters from the Noop overwrite the MVS/Download header parameters. | Defines the ticket parameter source priority. |
| StartMVSClass | **0**<br><Number, min. 0, max. 950> | First Océ PRISMAproduction Server queue which is used as base to add MVS alphabetical class value to it. |

**Job Submission Parameters**

| Parameter | Possible values | Description |
|---|---|---|
| JobGrouping | SingleFileJobs -><br>Each data file of the grouped job is submitted as a separate job.<br>**GroupedFileJobs** -><br>Each grouped job is submitted as one single job with multiple data files (default). | Specifies how grouped jobs are submitted. |

| Parameter | Possible values | Description |
|---|---|---|
| MaxCopies | **0**<br><Number> | Maximum number of copies a printable job may contain. The value 0 disables this feature. Default 0. |
| MaxKBytes | **0**<br><Number> | |
| Mirror-DataFile | **Yes** ->**<br>**Mirror data file(s) with Download while receiving them (on the fly).<br>No ->**<br>**Mirror data file(s) during the job submission when mirroring is defined for this port. | Defines the time when the data files are mirrored. To be able to use this feature the Interconnectivity license is needed and the MirrorServer must be defined for this port.<br><br>*Note:*<br>Set this parameter to 'No' when a job submission script is used in which data file manipulation steps are done. |
| MirrorPolicy | **Mandatory** ->**<br>**A job is not accepted on this server when it can not mirror the job.<br>Optional ->**<br>**A job will always be accepted independent of the mirror job status. | Defines the job acceptance on this server when the mirror server doesn't accept the job. To be able to use this feature the Interconnectivity license is needed and the MirrorServer must be defined for this port. |
| MirrorServer | **""**<br><IP Address> | Name or IP address of the mirror server. Only available when the 'Interconnectivity' license exists and the mirror server is defined in the Océ PRISMAproduction Server System Configuration |

| Parameter | Possible values | Description |
|---|---|---|
| PrgJobSubmission | **pjm**<br><Another executable script or binary > | This program or script is used to submit the job into the Océ PRISMAproduction Server system. See section 'The job submission' in *'Input Modules': Overview'* on page 460. |
| TicketRule | **""**<br><String> | Name of the Ticket rule to use when the job is submitted. The Ticket Rule must be defined in the Océ PRISMAproduction Server Ticket Rule Configuration first before it can be selected in the list. |

### Special IP PrintWay Issues

When the job is send using IP PrintWay the following points need to be addressed:

- The 'IBM specific OCT conversion' table is used (additional to the normal LP) to map the parameters from the LP control file to the OCT.
- The 'OutputDataStructure' parameter must be changed to change the incoming 2 byte record length fields to (for example) a 4 byte length field (OutputDataStructure=VAR).

### Special Windows Printer Driver Issues

When the data is generated with the windows printer driver it generates OCT parameter into the data file. Therefore the parameter 'ExtractParameters' must be set to the value 'AFPParameters'.

# 'LP': Behavior in Error Situations

## Introduction

The behavior of the 'LP' daemon in error situations is situation dependent to make sure that the least interference of the normal workflow is achieved. This section explains what happens if a certain situation appears.
If the configured default ticket can not be found on the hard disk no jobs using this 'LP' printer can be submitted. Therefore a user message will be created and the 'LP' printer will be disabled.
If problems occur during the job submission, retries of job submission are done in the following four cases: before the next job for this port is submitted, when the printer is enabled again or when the 'LP' daemon is restarted. Then it is possible for the user to manually modify the system and make sure the job can be submitted.

*Note:*
After 3 days the not submitted data files of the jobs will be removed from the system to prevent the hard disk of filling up.

## Generating a trace file

The trace file is generated by the 'LP' daemon and shows the function call sequences as well as main values from variables which are used. This file can be used by the development department to solve an error in the 'LP' daemon. To create a trace file, select menu 'Edit' -> 'Edit global parameters' -> 'Download' in the Océ PRISMAproduction Server 'Input Modules' configuration window and change the following parameters:

| Parameter | Value | Description |
|---|---|---|
| Trace channel | 0<br><LP Port> | Defines the port where application socket traces are made. The value 0 disables this feature. Also the trace flags must have at least the 0x00000200 flag set. |
| Trace flags | 0xfff1cf9<br>0xfff1cfb<br>0xfff1efb | Traces are written with performance information; no print data files are collected (Standard trace).<br>Traces as well as data files are collected (Data trace).<br>Traces, data files as well as data socket traces are made (Socket data trace). Set the parameter 'Trace Channel' to the port from which the Socket Data Trace is to be captured. |

| Parameter | Value | Description |
|---|---|---|
| Trace level | 4 | Highest trace level |

The 'LP' daemon saves only one previous copy of the trace file. Older trace files are deleted. With each 'LP' reset or Océ PRISMAproduction Server reset a new 'LP' trace file is created. Data trace files however are not overwritten and must be deleted manually when they are not needed anymore.
Even when the lowest trace level 0 is used errors are always being written. So when an error occurs and the trace level is 0, this trace file still contains traces, so please save this too and send it in with the trace files that are additionally made.
When the traces are made and the error is reproduced prismadiag can be used to collect the information.

| | |
|---|---|
| <JobId>_pjm_cmd.out | The command used to call the job submission script. |
| All_ISS_* | The protocol of the Input Status View command exchange. |
| All_PJM_* | The protocol of the PJM socket commands. |
| LPD_DataTrace_* | Socket data trace file. |
| lpd_<jobid>_* | The data file(s) belonging to the job. |
| lpd_<jobid>_<port no>.oct | The job specific Oce custom ticket to control the print job. |
| lp.err*, lp.log* | The 'LP' daemon error and log files. |
| lpc.err*, lpc.log* | The lpc client log files (use -D option). |
| lpq.err*, lpq.log* | The lpq client log files (use -D option). |
| lpr.err*, lpr.log* | The lpr client log files (use -D option). |
| lprm.err*, lprm.log* | The lprm client log files (use -D option). |

Dependent of the trace flags set, not all of these files is created.

*Note:*
Beware of the hard disk space when data traces are written. Data traces generally are very large and generate a large number of files.

## Trace Level and Flags details

This chapter is only for those users who want to know more. In most cases the options described in the previous chapter will be enough.
'LP' has a trace level and trace flags which control the behavior on how the trace file is written. Using theses levels and flags it is possible to control the amount of data and when the data is written.
The flags are used bit wise, which means each trace flag mode can be set separately. Normally the TraceLevel should be set to 3 or 4 to get enough trace details, this will produce large traces.

### Trace level

The trace level can be set from 0 to 4. Each level higher produces more detailed information and includes all the information of the lower levels:

| Level | Level Name | Description |
|---|---|---|
| 0 | Error messages | Only when errors occur. |
| 1 | Section messages | Main section enter/exit info. |
| 2 | Function messages | Function enter/exit with return code info |
| 3 | Info messages | Important variables/information |
| 4 | Detail messages | Detailed variables and other information (Large Trace File !) |

### Trace Flags

The trace flags are used to control the behavior of the trace file/Input-Filter. The following trace flags are available:

| Special Flags | Name | Description |
|---|---|---|
| 0x00000001 | Performance | Collects special performance information and writes this into the trace file. |
| 0x00000002 | Copy I/O data | Creates a copy of the output files in the diag directory. |
| 0x00000004 | Error only flag | Only when errors occur trace info is written into the trace file. This includes also traces which happen just before the error occurs. |
| 0x00000008 | Time flag | Time info is added for each trace line. |

| Special Flags | Name | Description |
|---|---|---|
| 0x00000010 | Section flag | Program section and source code id./class are added for each trace line. |
| 0x00000020 | Buffer trace flag | The trace info is buffered until the buffer is full and then written to the trace file. By NOT setting this bit the trace information is written line by line to the trace file (lower performance). |
| 0x00000100 | Buffer data trace | When this flag is set a buffer data trace is written. |
| 0x00000200 | Socket data trace | When this flag is set an application socket data trace is written. |
| 0x00000400 | Input Status trace | When set it writes the Input Status protocol trace |
| 0x00000800 | PJM protocol trace | When set it writes the PJM protocol trace |
| 0x00001000 | PJM cmd trace | When set it writes for each PJM command a separate file with the used parameters. |

# LP Windows Client

## Introduction

The LP Windows client can be used in two different ways: The first is to use the command line command 'lpr', the other is to configure an lpr printer.
To be able to use the 'lpr' command line command no configuration is needed to send an LP job to your Océ PRISMAproduction Server server.

Syntax: 'lpr -S <Server> -P <Queue> -<Data-file>'

| | |
|---|---|
| Server | Name or IP-address of the Océ PRISMAproduction Server server. |
| Queue | Name of the logical printer queue configured on the Océ PRISMAproduction Server server. |
| Data-file | Name of the data file to be printed. |

The option '-o l' (a lowercase 'L') can be used for defining binary transmission when binary (postscript, etc.) files are sent.

*Note:*
No data conversion is done before the data is sent. Make sure the file has the correct format before the data is sent, or that the receiving server can convert the data when this is needed.

If the correct licenses are available and the logical LP printer is configured properly, data conversion (PostScript, PDF, Linedata, …) can be done by Océ PRISMAproduction Server. The RAW windows format however cannot be converted. The other way is to create an lpr printer and configure this printer to send the data to the Océ PRISMAproduction Server server LP queue. The data output format can be one of the following output formats:

- AFP (free driver available, an extended version with more features can be bought)
- PCL (free driver available, an extended version with more features can be bought)
- Postscript

## Configuration of an LPR Printer under Windows XP

1. Select 'Start' and then 'Printers and Faxes'.
2. Double click the 'Add Printer' icon to start the 'Add Printer Wizard'. Click 'Next'.
3. In the following window select 'Local Printer' and click 'Next'.

4. In the 'Select a Printer Port' window activate 'Create a new port' and select 'Standard TCP/IP port' from the drop down list. Click 'Next'.
5. The 'Add Standard TCP/IP Printer Port Wizard' is started. Click 'Next' and then fill in the Océ PRISMAproduction Server hostname or IP address as 'Printer Name or IP Address', the 'Portname' is added automatically. Click the 'Next' button.
6. In the next window select 'Custom' and click 'Settings...'.
7. In the configuration window activate 'LPR' as 'Protocol'. Fill in the 'LPR Settings Queue Name' with the Océ PRISMAproduction Server logical LP queue name and click the 'OK' button.
8. You return to the previous wizard window. Click 'Next' and the 'Finish' to complete the wizard.
9. After the port is configured you can select the appropriate printer driver (AFP, PCL, postscript etc.) and follow the instructions of the 'Add Printer Wizard' to finish the configuration.

# LP Windows Tools

## Introduction

On the Océ PRISMAproduction Server software CD in the directory \tools_win\LP some small LP tools are available. The following tools are supplied:

- Starting lpq from the menu
- Starting lpr from the 'send to' menu

Please give us a response how these tools are accepted. If the response is positive, we will extend these kind of features in the future.

## Starting lpq from the menu

To start the lpq command from the menu two small files are needed. The first is a batch file which shows a command line window, starts the lpq command and waits until the user clicks a button to close the window. The used path should be:
'C:\Program Files\Oce\inputmodules\exe'.

The second file is a shortcut which calls the lpq batch program and can be for example put in the Windows directories, which contain the start menu entries:
'C:\Documents and Settings\<user>\Start Menu\Programs\Océ\LP\lpq'
<user> must be replaced by the user using this tool.

| | |
|---|---|
| Server | Name or IP-Address of the Océ PRISMAproduction Server server. |
| Queue | Name a configured LP queue on the Océ PRISMAproduction Server server. |

The listing displayed is the listing of all the print jobs which are received by the LP protocol. At the moment no distinction is made via which logical LP queue the print job has entered the Océ PRISMAproduction Server system. This behavior will change however in a future release, so that only the jobs from the specified logical sprinter can be seen.

## Starting lpr from the 'SendTo' menu

To start the lpr command and send data files to the Océ PRISMAproduction Server server two small files are needed. The first file is called LprWinClient.exe, and is an executable which checks the parameters, writes a small trace file and then submits each se-

lected data file as a single print job to the Océ PRISMAproduction Server server. This program can also be used separately in a batch file. The used path should be 'C:\Program Files\Oce\inputmodules\exe'.

The second file is a shortcut which calls the LprWinClient.exe and must be put into the Windows directories where the 'send to' menu entries are located:
' C:\Documents and Settings\<user>\SendTo '
<user> must be replaced by the name of the user who is using this tool.

## Frequently asked questions

- Always use the prismaproduction path '/u/prismapro/bin/' when using the LP clients lpr, lpc, lpq and lprm.
- Editing files on a Dos or Windows system can result in files with a special character "Ctrl-Z" at the end. This may result in unpredictable problems! Therefore it is recommended to use the configuration tools.
- The LINUX system in general is case sensitive. This has to be considered for all entries into configuration or script files.
- HP UNIX client: During LP configuration with the "sam" utility: Please select "Remote printer is on a BSD system".

Transfer of LPD jobs from a Windows OS:
During transfer of many small jobs via LP from a windows system, the transfer process may slow down. It seems that the communication hangs or slows down but jobs are still transferring data.
The cause for this is that the Windows NT/ Windows 2000 OS only use 11 TCP ports. When more than 11 connections are needed it waits until the first port is available again. This can take up to 3 minutes.
There is a description from microsoft which shows how to edit the registry to fix this problem:
http://support.microsoft.com/default.aspx?scid=kb;EN-US;179156

# Chapter 8
# PJM Command Line

# PJM Command Line Mode Overview

## Introduction

Besides the graphical user interface, the Print Job Manager also provides a command-based interface, which can be called on all systems that have the PJM GUI Client installed. The PJM command line can also be installed separately.

The executable version of the command line is supported on LINUX ('/usr/bin/pjm') and Windows (spjm.exe in folder CD/tools_win). The executable is small and fast on the client, as the Océ PRISMAproduction Server socket interface is used and most of the work is done on the server.

The Windows user has to install the Windows command line version on the windows system by hand.

The description for the command line is valid for all incarnations.

## PJM Command Line Features

The PJM command line enables you to execute print jobs by entering a command string. Also a few maintenance functions can be performed especially regarding Print File Libraries. In general some form of a Job Ticket is defined and merged with other command line options. This results in a submission ticket which is transferred to the Océ PRISMAproduction Server system along with the print data (as far as necessary). The resulting ticket controls the print process on the server site.

In particular you can:

- Specify a Océ PRISMAproduction Server system on which the print job should run.
- Define either a local or reprint Job Ticket as basis for a print job - optional along with a custom ticket OCT for modifications of the original ticket
- Specify a job class, printer, the job name, copy count and form
- Specify a page definition and form definition for APA jobs
- Select a composer set to impose chained files
- Replace local files and/or files from a Print File Library in the list of files already defined in the original ticket
- Delete documents in a Print File Libraries and Resource Libraries
- Display the status of a job or a list of jobs
- Cancel a job or a list of jobs
- Request a jobid and use it in a subsequent job submission

All options regarding Print File Libraries are applicable to Océ PRISMAproduction Server systems with the language module POD only. Same applies to the composer set name.
The option regarding page and form definition is applicable to Océ PRISMAproduction Server systems with the language module APA only.

# PJM Command Line Parameters

## Introduction

You call the PJM Command Line with the following command:

'pjm parameter...'

## Parameters

All parameters are optional and can be entered in any order.

| Information Parameters | Meaning |
|---|---|
| -? or no parameter | display all parameters available. There is no processing action in this case. |
| -v | display version number. There is no processing action in this case. |
| **Connection Parameters** | **Meaning** |
| **-s** <server-name> | server to which the job or command is to be sent<br>Default: the local system |
| **-user** <user-name> | user name under which the PJM command line connects to the PRISMAproduction server<br>Default: the current user |
| **Ticket Parameters** | **Meaning** |
| **-t** <ticket-name> | Path of the local Job Ticket<br>Job ticket containing default parameters.<br>Default: no job ticket |
| **-oct** <oct-name> | Path of the Oct<br>Océ Custom Ticket is used to modify the local Job Ticket or the Reprint Job Ticket (or the empty Job Ticket if none has been defined).<br>Default: no oct |

| Information Parameters | Meaning |
|---|---|
| **-r** <reprint-name> | Logical path of reprint ticket/data.<br>The reprint job must be specified as follows ($ can be replaced by @, as the use of the $ character is restricted in some operating systems):<br>'[/$PFL/]Archive/User/Document' for private or<br>'[/$PFL/]Archive/User#Document' for public jobs.<br>Default: no reprint |
| **-tr** <ticketrule> | Name of the ticket rule, which is applied to the executed job ticket.<br>This function is not implemented in the PJM user interface.<br>Default: no ticket rule |
| **Print Parameters** | **Meaning** |
| **-jn** <job-name> | Name of the job. Default: 'tmp' if no job name has been defined in the local ticket or custom ticket. The job name in the custom ticket overlays the job name in the local/reprint ticket. |
| **-jc** <job-queue> | Number of the jobqueue.<br>Default: 1 |
| **-nc** <copy-count> | Number of jobcopies<br>Default: 1 |
| **-prt** <printer-name> | Name of the target printer or clustername.<br>The printer also determines the resolution at which the job will be printed. Instead of a configured printername or clustername you can also insert the keyword <Any printer> or <Any nnn dpi printer> (nnn stands for the resolution).<br>Default: the first printer available. |
| **-form** <form> | PRISMA form name which will be displayed to operator before printing starts.<br>Default: STD, i.e. no form message is displayed |
| **-pdef** <page-definition> | PRISMA Page Definition<br>If more than one file is defined in the list of files, the page definition is set for each of the according print steps. |
| **-fdef** <form-definition> | PRISMA Form Definition<br>If more than one file is defined in the list of files, the form definition is set for each of the according print steps. |
| **-title** <title> | Specifies a title for System Header Pages. |
| **File Parameters** | **Meaning** |

| Information Parameters | Meaning |
|---|---|
| **-f** <file-name>… | Path of print files(s)<br>Local print files to be printed using the parameters in the job ticket loaded with **-t** or **-r** or/and **-oct**. The file names in the job ticket are replaced one by one by the names specified.<br>**Note**: The replacement in the list of files takes place after the custom ticket has been merged with the local/reprint ticket. If more files are given here than defined in the merged ticket, additional default file entries are created (defaults according to the ticket type APA/LCDS/POD). Default: the filenames defined in the ticket |
| **-pfl** <file-name>… | Path of pfl(s) PFL print files to be printed using the parameters in the job ticket loaded with -t or -r or/and -oct. The print file names in the job ticket are replaced one by one by the names specified. Files must be specified as follows:<br>'Archive/User/Document' for private or<br>'Archive/User#Document' for public jobs.<br>**Note**: Same as for the -f parameter. |
| **-imp** <impos-file> | Path of imposition file Impositioning set. All files are imposed after they are chained. |
| **PJM control Parameters** | **Meaning** |
| **-type** <language module> | Specifies the type of the ticket: APA\|LCDS\|POD<br>Default: POD<br>The **-type** option is useful in combination with the **-f** option only because otherwise the ticket type is part of the job ticket. |
| **-getid** | Request a job id<br>Returns a new PRISMAproduction job id to be used in a subsequent job submission (see **-id** option). |
| **-id** <job-ident> | Job id that is to be used in the current submission.<br>It is assumed that the jobid has been requested by a previous PJM call using the **-getid** option.<br>Default: generated implicitly for current submission |

| Information Parameters | Meaning |
|---|---|
| **-quiet** | Run in quiet mode<br>Do not display formatted messages on STDOUT and STDERR. Display a code instead and optional a list of parameters depending on the code.<br>This parameter is supposed to be set when the PJM Command Line is used in shell scripts. Error handling should be much easier when dealing with codes and parameters instead of formatted (language dependent) messages. See more detailed description below. Default: verbose |
| **-wait** | Wait until the job is ready to print<br>PJM command line does not return any values until the job is "ready to print" or is aborted with an error or is deleted.<br>Returncode:<br>If the waiting state of the command line is finished because the job is aborted with an error, the return code is 12 otherwise it is 0.<br>Default: do not wait, return after job has been accepted |
| **-force** | Accept job anyway<br>If you "force" a job it is submitted anyway. The job appears in the list of jobs despite of missing important options. From there you have to set the missing options for each job via the PJM GUI.<br>Normally also the error situation, which prevented the job from being accepted in the normal way has to be corrected.<br>**Example**: An output tray has been referenced, which is not defined for the given printer. If the job must be printed on the given printer, the referenced tray must be defined for this printer before resubmitting the job. |
| **-link** | Creates links on the ODS master to the print files if possible. You can find the respective parameter under **PJM** -> Menu **Job** -> **Transfer Mode**<br>Default: Copy print data to the server. |
| **Job control Parameters** | **Meaning** |

| Information Parameters | Meaning |
|---|---|
| **-status** <job-id>… | Get basic job status<br>Returns the status of a job / a list of jobs. The jobid is the 8-digit number displayed when a job is submitted. The status can be: wait, work, interrupted, error, unknown, canceled, finished. If the status is error, an additional description of the error will be shown, e.g. "error: tiffconv Input file wrong format". |
| **-prio** <num> | Priority of the print job. num = 1-255 (no blank character between -prio and <num>!)<br>**Example**: "pjm -f /u/prismapro/demo/ioca/demo.ioca -prio100". The user must have the permission to modify the priority. |
| **-cancel** <job-id>… | Cancel job(s) listed<br>Cancels a job / a list of jobs. The jobid is the 8-digit number displayed when a job is submitted. |
| **-rdelete** <resource-id>… | Name(s) of Reprint/ Resource<br>Delete documents in Print File Libraries and Resource files. You have to add the fully qualified logical path. $ can be replaced by @, as the use of the $ character is restricted in some operating systems.<br>If you are logged in as "admin", '"root" or "system" you can replace the userid in the filename by the wildcard *.<br>**Example**:<br>'/$PFL/Archive/User/Document' for private reprints<br>'/@OVERLAYS/User#Document' for public overlays |
| **Mirror Parameters** | **Meaning** |
| **-mirror** <server-name> | Server, on which the job should be mirrored during submission. The mirror server must be defined under **Configuration** -> **System** on the original server.<br>Respective option on the GUI: **PJM** -> Menu **Job** -> **Transfer Mode** -> **Mirror Jobs during Submission**and **Mirror Server**.<br>Default: no mirroring of jobs |
| **-mp** <policy> | Mirror policy: optional/mandatory<br>Respective option on the GUI: **PJM** -> Menu **Job** -> **Transfer Mode** -> **Mirror Jobs during Submission** and **Mirror Policy**.<br>Default: The value set in 'Configurtion' -> 'System'. |

| Information Parameters | Meaning |
|---|---|
| **-mnd** | Mirror no data<br>The data must exist on the mirror server to print the job.<br>Respective option on the GUI: This parameter connot be set via the GUI.<br>Default: Transfer of ticket and data. |
| **-mtr** <ticket rule> | Ticket Rule which is executed on the mirror server: <ticket rule> \| none.<br>'none' means that no ticket rule is executed on the mirror server. If a ticket rule is set via the tr-parameter, the ticket rule set here is executed on the mirror server additionally to the ticket rule executed on the original server.<br>Respective option on the GUI: **PJM** -> Menu **Job** -> **Transfer Mode** -> **Mirror Jobs during Submission** and **Ticket Rule**.<br>Default: The value set in 'Configurtion' -> 'System'. |
| **-muser** <user-name> | User who starts the job on the mirror server.<br>Respective option on the GUI: **Configuration** -> **System** -> **Mirroring** -> **User Name**.<br>Default: The value set in **Configurtion** -> **System**. |
| **-mpw** <password> | Password for the user set under "muser".<br>Respective option on the GUI: **Configuration** -> **System** -> **Mirroring** -> **Password**.<br>Default: The value set in **Configuration** -> **System**. |

## Usage of Ticket, Print and File parameter groups:

These parameter groups may be used exclusively or combined (where they supplement each other). The idea behind is to allow to print either without a Job Ticket or with a Job Ticket/Oct and replacing parameters in the ticket.

| Parameter Group | Description |
|---|---|
| No local Ticket | For simple print jobs. Normally only the "file parameter" would be used here, maybe with setting a job name and printer by "print parameters".<br>**Example**: -jn simple -nc 2 -f test.afp |
| Local Ticket only | For fully prepared print jobs. All parameters are defined in the Job Ticket. |

| Parameter Group | Description |
|---|---|
| Local Ticket + Print/Files: | For prepared print jobs. A few parameters in the job ticket must be updated.<br>**Example**: -t test.tic -f test.afp -prt myprinter |
| Local Ticket + Oct | For print jobs which are based on a default ticket and where a lot of parameters must be updated. All dynamic parameters are contained in the Oct. |
| Local Ticket + Oct + Print/Files | Should not be used. Either the dynamic parameters are written in an Oct or the Print/Files group is used for overwriting. |
| Reprint request | The special request -r, where a job kept in intermediate storage should be reprinted. The Job Ticket for the reprint is supposed to be the ticket of the original job.<br>If the -f parameter is used together with a Job Ticket, it simply overwrites the file name in the List of Files in the Job Ticket. The file type in the ticket remains valid. If it is used without a Job Ticket, the type of the file depends on the language module which interprets the job on the server.<br>Default file types are "IOCA" for the language module POD, "AFP" for the language module APA and "LCDS Data" for the language module LCDS. |

## Syntax Examples for Use Cases

| Task | Command |
|---|---|
| Requesting a job id | [-s Servername] [-user User] -getid [-quiet] |
| Displaying the job status | [-s Servername] [-user User] -status JobId1 [JobId2 … JobIdN] [-quiet] |
| Deleting resources and reprints | [-s Servername] [-user User] -rdelete ResOrPfl1 [ResOrPfl2 …ResOrPflN] [-quiet] |
| Cancel and delete job(s) | [-s server name] [-user User] -cancel JobId1 [JobId2 … JobIdN] [-quiet] |

## Return Codes

| Return-code | Meaning |
|---|---|
| 0 | **Success** |

| Return-code | Meaning |
|---|---|
| | All information is written to STDOUT.<br>**Job Submission**<br>■ Message for each file transferred to the ODS Master and a final success message. The job identification is automatically included as each message starts with "Job <job identification>: …".<br>■ Quiet mode: The ODS job identification.<br>**Job Id request**<br>■ Message containing the ODS job identification returned.<br>■ Quiet mode: The ODS job identification<br>**Status**<br>■ Status of job(s) is written.<br>for detailed information of <job status> see table below.<br>■ Quiet mode: <job identification> -> <job status><br>**Resource delete**<br>■ No information is written.<br>■ Quiet mode: No information<br>**Cancel**<br>■ Information that job(s) has(have) been canceled is written.<br>■ Quiet mode: No information |
| **1** | **Invalid command line option** |
| | Is set when an invalid option is found in the command line call.<br>Parameter parsing stops on the erroneous option.<br>STDERR: Message indicating the erroneous option<br>Quiet mode: 0 -> <invalid option> |
| **3** | **No connection error** |
| | Is set when no connection to the PRISMAproduction server specified by –s option could be established.<br>STDERR: Message describing the connection problem<br>Quiet mode: 1:-> <server name> -> <server error message> |
| **5** | **Ticket handling error** |

| Return-code | Meaning |
|---|---|
| | Is set when the tickets given in the -t or -r and/or -oct cannot be found/opened.<br>STDERR: Message describing the open problem<br>Quiet mode:<br>1 -> <local ticket open error message><br>2 -> <reprint ticket open error message><br>3 -> <custom ticket open error message> |
| **10** | **File transfer error** |
| | Is set when one of the files in the list of files cannot be transferred. Transfer process stops with the file in error, files already transferred to the server are deleted on the server.<br>STDERR: Message describing the file transfer problem<br>Quiet mode: 1 -> <file name> -> <error message> |
| **11** | **Negative Ticket check** |
| | Is set when the combination of the local or reprint and custom ticket with the command line options results in an invalid ticket. All errors found are listed. Note that there are errors which are so basically that no further analysis can be done (for example an invalid printer, as most of the checks are printer related). Analysis stops with such an error.<br>STDERR: List of messages describing the problems, one message per problem<br>Quiet mode:<br><code1> <error text 1><br>:<br>:<br><codeN> <error text N> |
| **12** | **Job submission error** |

| Return-code | Meaning |
|---|---|
| | Is set when the PRISMAproduction server doesn't accept the job. This can happen for two reasons:<br>■ A problem in the negotiation process between the PJM client and server which files are to be transferred (not the transfer itself, would raise a 'File Transfer Error')<br>■ The job cannot be passed to ODS for execution Returncode 12 is also set if the waiting status of the of the PJM command line is terminated by an error.<br>STDERR: Message describing the job submission problem<br>Quiet mode:<br>1 -> <server error message><br>2 -> <termination error message> (only possible if the -wait option has been specified) |
| **13** | **Status display error** |
| | Is set when the PRISMAproduction server can't return the status of the given job(s).<br>STDERR: Message describing why the status has not been returned<br>Quiet mode: 1 -> <server error message> |
| **14** | **Job cancel error** |
| | Is set when the PRISMAproduction server can't cancel the given job(s).<br>STDERR: Message describing why the job(s) has(have) not been canceled<br>Quiet mode: 1 -> <server error message> |
| **15** | **Resource delete error** |
| | Is set when the PRISMAproduction server can't delete the given resource(s).<br>STDERR: Message describing why the resource(s) has(have) not been deleted<br>Quiet mode:<br>1 -> <resource name><br>2 -> <resource name> <server error message> |

<Job Status> is composed of more detailed information in the following format:

'<Main Status> <Detailed Status> [<Additional Status>] '

'<Main Status>' and '<Detailed Status>' are defined explicitly, whereas <Additional Status> is optional and not definitely defined. <Detailed Status> must not be used for a logical decision.

| Main Status | Detailed Status (Meaning) |
|---|---|
| processing | The job is busy, no operator intervention required, information only |
| | **transfer**: files are being transferred<br>**work**: a job step is active (converting,…)<br>**printing**: the print data is being printed<br>**prepintr**: the print has been interrupted but the printer is still printing (for example copies) |
| wait | The job waits for a resource or an event, no operator intervention required. Job continues when event occurs or resource becomes available |
| | **outputctrl**: job has been printed but there are still pages in output tray<br>**print**: wait until a printer becomes ready to print<br>**job event**: wait for an external event to occur<br>**service**: wait for a service to become available<br>**time**: wait for starting time to occur |
| exception | The job is in an error or interrupted or hold state, operator intervention is required |
| | **error-service**: error occurred when processing job step<br>**intr-service**: job step has been interrupted by operator<br>**hold-service**: job step is in hold<br>**error-print**: error occurred while printing<br>**intr-print**: print process has been interrupted by operator<br>**hold-print**: print process is on hold, wait for starting time to occur |
| finished | The job is finished but still visible in spool, operator intervention is required for reprint |
| | **final**: finished, job cannot be reprinted<br>**locked**: job can still be reprinted |

# Chapter 9
# Océ Custom Ticket

# Oce Custom Ticket

## Introduction

The Océ custom ticket provides the possibility to modify an existing job ticket during it's execution. It is possible to insert a [job] section with global parameters. Into this section you can insert up to 9998 subsections [files] which define the parameter of the single print files. If there are already print files in the loaded job ticket, their parameters will be modified. You only have to add those parameters and sections which should be modified by the OCT. Sections and parameters which are not inserted will be ignored. The following table describes parameters, which can be modified via the Océ Custom Ticket:

## Parameters of the Océ Custom Ticket

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| **[job]** | | |
| Print= | Print output file yes/no<br>Default: yes | |
| Job_name= | Jobname<br>max. 64 characters<br>do not use '#', '/' and '.' if you work with archives<br>Default: tmp | Job Parameter |
| Job_Type= | POD/APA/LCDS/OLDS<br>Default: POD | Menu Ticket -> new |
| Copies= | Number of jobcopies that are to be printed<br>1-32767<br>Default: 1 | Job Parameter |
| Copy_Sheets= | Copies on sheet level<br>yes/no<br>Default: no | Job Parameter -> Copies.....'on sheets'<br>POD only |
| Multi_File_Print | Copies on job and file level<br>yes/no<br>Default: no | Job Parameter -> Copies.....'per Job+Files' |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Job_Class= | Job queue<br>1-999 | Job Parameter |
| Proof_Print= | Proof print<br>yes/no<br>Default: no | Job Attributes -> Print<br>POD only |
| Printer_Name= | Name of the printer or of a printer cluster | Job Parameter |
| Print_Mode= | Normal/Two up/Identical copies/Invers Two up/Default<br>Default: Default | Job Attributes -> Print |
| Outtray= | Output Tray Default/Printer Default/A/B/C/D/...<br>Default: Default | Job Attributes -> Print |
| Intray= | Input Tray Default/Printer Default/1/2/3...<br>Default: Default | Job Attributes -> Print<br>POD and APA only<br>For LCDS use JSL STOCKS/SCT technique |
| Print_Range= | List of print ranges which are to be printed, separated by semicolons i.e. -5;10;60-80; 1:5-10; 2:1;...1-3:10-;5-:1- | Job Attributes -> Print |
| Print_Form= | Name of a form | Job Attributes -> Print<br>Note for LCDS: If 'PrinterTyp=SCT' the form is set internally.<br>If 'PrinterTyp=FanFold/MediaName' the Print_Form-Parameter may be used. |
| Toner_Color_Names= | List of colornames separated by comma | Job Attributes -> Print -> Color Selection |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Priority= | Priority of the print job<br>1 - 255<br>Default: 128 | All Jobs -> Job Properties |
| Store= | Store output in libraries<br>yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Native= | Store output as native file<br>yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_PFL= | Store output in PFL<br>yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Preprint= | Store output in preprint cache<br>yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Resource= | Store output as resource<br>yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Resource_Dest= | Type of destination where output is to be stored as a resource: Header/Target/Overlay/Variable/Marks/Merge/Mapping/Tiff/Ps/Pdf<br>Default: Target | Job Attributes -> Store Output<br>POD only |
| St_Native_Dest= | Type of destination where output is to be stored as a resource: Target only<br>Default: Target | Job Attributes -> Store Output<br>POD only |
| St_PFL_Dest= | Name of PFL where output is to be stored<br>Default: Default | Job Attributes -> Store Output<br>POD only |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| St_Preprint_Dest= | Name of preprint cache where output is to be stored<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Resource_Public= | Store resource public yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Native_Public= | Store native data public yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_PFL_Public= | Store in PFL public yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_Preprint_Public= | Store as Preprint public yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| St_PFL_Delete= | Delete preprint after it has been released to a PFL yes/no<br>Default: no | Job Attributes -> Store Output<br>POD only |
| Message= | Attach message to a job yes/no<br>Default: no | |
| Message_Text= | Text of the message | Job Attributes -> Message |
| Message_Type= | Type of the message display/confirm<br>Default: display | Job Attributes -> Message |
| Header= | General option to print job header pages or not yes/no<br>Default: no | Job Attributes -> Header/Trailer |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Header/Trailer= | Option to print special system header pages (the general option header must be yes):<br>yes/MSG/no<br>yes: Print system header, trailer and message pages<br>MSG: print system message/error pages only (no system header and trailer pages)<br>Default: no | Job Attributes -> Header/Trailer |
| Header_User= | Print user header page yes/no (if yes, you also have to set: Header=yes)<br>Default: no | Job Attributes -> Header/Trailer<br>POD only |
| Header_User_File= | Name of the file which contains the print data for the user header.<br>/$HEADER/<filename> | Job Attributes -> Header/Trailer<br>POD only |
| Header_User_Outtray= | Output tray in which the header pages should be put<br>Default/A/B/C/D<br>Default: Default | Job Attributes -> Header/Trailer<br>POD only |
| Header_User_Intray= | Input tray from which paper for header pages should be taken<br>Default/1/2/.../8<br>Default: Default | Job Attributes -> Header/Trailer<br>POD only |
| JT_print= | Print Job Ticket<br>yes/no (if yes, you also have to set: Header=yes)<br>Default: no | Job Attributes -> Header/Trailer<br>POD only |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Header_Outtray= | Output tray in which the header should be put<br>Default/A/B/C/D, Formdef<br>Default: Default | Job Attributes -> Header/Trailer<br>POD only |
| Header_Intray= | Input tray from which paper for the header should be taken<br>Default/1/2/.../8<br>Default: Default | Job Attributes -> Header/Trailer<br>POD only |
| Header_Rotation= | Rotation angle for the header<br>0/90/180/270<br>Default: 0 | Job Attributes -> Header/Trailer<br>POD only |
| Active_Notification= | mail notifying triggered by job states<br>.mailNotify <mail address> <status-1> <status-2> < status-n><br><status>:<br>START\|PRINTING\|FINISHED\|ERROR\|INTERRUPT\|CANCELED\|DELETED<br>Example: .mailNotify test@nowhere.com PRINTING FINISHED | Job Attributes -> Notification |
| Catalog= | Defines the custom catalog for XEROX and converted AFP resources and printfiles. Use only catalogs defined in the LCDS/GCI view of the resource manager<br>Default: DEFAULT | Job Attributes -> Print<br>LCDS Only |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Catalog_Host= | Defines the server of the ODS cluster, where the catalog is located and defined and where the LCDS process chain (ifilter -> xfilter -> spooljob) should run. | Job Attributes -> Print LCDS Only |
| Alarm_Delay= | Alarm_Delay represents the minutes between the "Accepted" time of the print job and the time limit. | |
| Alarm_Text= | Alarm_text is the message shown in the message popup window, if the time limit is reached. | |
| **[client]** | | |
| Client_Name= | Name of the client | Menu Job -> Information -> User |
| Client_Company= | Client company | Menu Job -> Information -> User |
| Client_City= | Client city | Menu Job -> Information -> User |
| Client_Street= | Client street | Menu Job -> Information -> User |
| Client_ZIP= | Client zip | Menu Job -> Information ->User |
| Client_Country= | Client country | Menu Job -> Information -> User |
| Client_Tel= | Client phone number | Menu Job -> Information -> User |
| Client_Fax= | Client fax number | Menu Job -> Information -> User |
| Client_Branch= | Additional information about client | Menu Job -> Information -> User |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| **[receiver]** | | |
| Rec_Name= | Name of receiver | Menu Job -> Information -> Receiver |
| Rec_Company= | Receiver company | Menu Job -> Information -> Receiver |
| Rec_City= | Receiver city | Menu Job -> Information -> Receiver |
| Rec_Street= | Receiver street | Menu Job -> Information -> Receiver |
| Rec_ZIP= | Receiver zip | Menu Job -> Information -> Receiver |
| Rec_Country= | Receiver country | Menu Job -> Information -> Receiver |
| Rec_Tel= | Receiver phone number | Menu Job -> Information -> Receiver |
| Rec_Fax= | Receiver fax number | Menu Job -> Information -> Receiver |
| Rec_Shipment= | Additional information about receiver | Menu Job -> Information -> Receiver |
| Shipment= | Specific shipment information | Menu Job -> Information -> Shipment |
| Acc_Custom_Id= | Booking account for Accounting | Menu Job -> Information -> Shipment |
| **[files] (general)** | | |
| File= | Complete Name of file with physical or logical path | List of Files |
| Format= | IOCA/PCL/TIFF/PS-Unity/PDF-Unity/AFP/LCDS Data/JSL/Resource/RAW | List of Files |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| File_Copies= | Number of file copies that are to be printed<br>1-32767<br>Note: If you set File_Copies the Parameter 'Multi_File_Print' has to be yes. | List of Files<br>POD and APA only<br>For LCDS use JSL/DJDE based copies command |
| **[files] (POD)** | | |
| ft_setname= | Composer-Setname physical or local path of the file which contains the impositioning parameters | File Properties POD -> Compose |
| ft_extra= | Additional parameter for Composer -vdfile variable-data-file | use only with Oct |
| Sample= | Collect files<br>no/masked/left_index/right_index/directory<br>Default: no | File Properties POD -> Collect |
| Sample_Range= | Collecting-Range e.g "1-4;6;9-13" | File Properties POD -> Collect |
| Sample_Gaps= | Collecting: allow gaps in the file numbering scheme<br>off/on<br>Default: off | File Properties POD -> Collect |
| Paper_Size= | Paper size<br>A4/A4_uncut/A3/A3_uncut/B4/Letter/Legal/Ledger/A5/ Format1/Format2/variable size in the format "width, height unit" e.g..<br>15.5,24.8 cm or 8.5,11 inch | File Properties POD -> Convert |
| Layout= | Page layout<br>Simplex/Duplex/Tumble<br>Default: Simplex | File Properties POD -> Convert |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Fix_Screen= | User screening<br>on/off<br>Default: on | File Properties POD -> Halftone |
| Media_Names= | Papers<br>List of papernames separated by semicolons | File Properties POD -> Convert |
| PS_LPI= | Screening frequency in lpi<br>0.1 .. 999.9<br>Default: 85.0 | File Properties POD -> Halftone |
| PS_Angle= | Screening angle in degrees<br>0.0 .. 360.0<br>Default: 45.0 | File Properties POD -> Halftone |
| **[files] (APA)** | | |
| Pdscc= | Specifies default carriage control character:<br>0x01 ASA carriage control character<br>0x02 IBM carriage control character<br>0x04 OCÉ carriage control character<br>0x08 LCDS data stream<br>0x10 None - Force single line spacing (16)<br>0x20 None - Force double line spacing (32)<br>0x40 None - Force triple line spacing (64)<br>Default: as defined in printer configuration | APA Settings -> Options -> Carriage Control Character |
| Pdstrc= | Specifies default table reference character:<br>0x00 No TRC present<br>0x01 IBM TRC present<br>0x02 OCÉ TRC present<br>Default: as defined in printer configuration | APA Settings -> Options -> TRC-Byte |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Pdsduplx= | Specifies default Simplex/duplex information:<br>-1 use information from FORMDEF<br>0 Simplex<br>1 Normal duplex<br>2 Tumble duplex<br>3 Rsimplex<br>4 Rnormal duplex<br>5 Rtumble duplex<br>6 Zigzag normal<br>7 Zigzag tumble<br>9 Rzigzag normal<br>10 Rzigzag tumble<br>Default: as defined in printer configuration | APA Settings -> Options -> Page Sequence |
| Pdsx2up | 2up in AFPDS | APA Settings -> Resources |
| Formdef= | Form Definition Default: F10101 | APA Settings -> Resources -> Form Definitions |
| Pagedef= | Page Definition<br>Default: P1STD3 | APA Settings -> Resources -> Page Definitions |
| Fonts= | List of the default fonts, if no other fonts are specified. | APA Settings -> Resources -> Preloaded Fonts |
| SPSLib= | List of individual resource paths. | APA Settings -> Resource Libraries -> Common Libraries |
| AFP_PageCount= | enables/disables count of pages, only if pages are not specified<br>yes/no<br>Default: no | APA Settings -> Options -> No of Pages: “Detect” |
| EXT_CODED_FONT= | List of individual Resource File Name Extensions of coded fonts. | APA Settings -> Resource File Extension -> Coded Font Suffixes |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| EXT_CODE_PAGE= | List of individual Resource File Name Extensions of code pages. | APA Settings -> Resource File Extension -> entries of Code Page Extension |
| EXT_FONT_CHARSET= | List of individual Resource File Name Extensions of font character sets.. | APA Settings -> Resource File Extension -> entries of Font Character Set |
| EXT_FORMDEF= | List of individual Resource File Name Extensions of formdefs | APA Settings -> Resource File Extension -> entries of Form Definition Extension |
| EXT_OBJECT_CONTAINER= | List of individual Resource File Name Extensions of xxx | APA Settings -> Resource File Extension -> entries of xxx Extension |
| EXT_OFF= | use or ignore File Extensions<br>0: use<br>1: ignore (Default) | APA Settings -> Resource File Extension -> select use/ignore File Extensions |
| EXT_OUTLINE_FONT= | List of individual Resource File Name Extensions of outline fonts | APA Settings -> Resource File Extension -> entries of Outline Font Extension |
| EXT_OVERLAY= | List of individual Resource File Name Extensions of overlays | APA Settings -> Resource File Extension -> entries of Overlay Extension |
| EXT_PAGEDEF= | List of individual Resource File Name Extensions of pagedefs | APA Settings -> Resource File Extension -> entries of Page Definition Extension |
| EXT_PAGESEG= | List of individual Resource File Name Extensions of pagesegments | APA Settings -> Resource File Extension -> entries of Page Segment Extension |
| LIB_COMBINE= | overwrite or add defined Libraries in Printer Configuration<br>0: overwrite<br>1: add (Default) | APA Settings -> Resource Libraries -> select use Printer Definitions additionally or ignore Printer Definitions |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| LIB_FONT= | List of individual resource paths of fonts. | APA Settings -> Resource Libraries -> Font Libraries |
| LIB_FORMDEF= | List of individual resource paths of formdefs. | APA Settings -> Resource Libraries -> Form Definition Libraries |
| LIB_OBJECT_CONTAINER= | List of individual resource paths of object libraries containers. | APA Settings -> Resource Libraries -> Object Container Libraries |
| LIB_OVERLAY= | List of individual resource paths of overlays. | APA Settings -> Resource Libraries -> Overlay Libraries |
| LIB_PAGEDEF= | List of individual resource paths of pagedefs. | APA Settings -> Resource Libraries -> Page Definition Libraries |
| LIB_PAGESEG= | List of individual resource paths of pagesegments. | APA Settings -> Resource Libraries -> Page Segment Libraries |
| Resource_Server= | Defines the name or IP of the resource server | APA Settings -> Resource Server |
| Pages= | Number of print pages (for Display only) | APA Settings -> Options -> Number of Pages |
| Pdscolmap= | Defines a default colormap resource (usually not used). | APA Settings -> Resources -> Color Mapping Table |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| JDE-Name= | specifies the label format of the tape or the structure of the record of HD-Files<br>Tape:<br>**ANSI01** ANSI Host and Label format (Default)<br>**NONE** none labeled tapes<br>HD-Files:<br>**FIXED** fixed record length<br>**VAR** variable records with binary IBM format length field<br>**VARBLK** variable blocked records with binary IBM format length field<br>**UNDEF** undefined record length using the record delimiter as delimiter<br>**ATXT_LF** both Linedata and SF where at least Linedata must have the CRLF delimiter (Default) | APA Settings -> Options -> Tape Label<br>or -> Record Structure |
| RecordConstant= | specifies record delimiter | APA Settings -> Options -> Record delimiter |
| RecordLength= | specifies fixed record length | APA Settings -> Options -> Record length |
| SkipBytes= | bytes at the beginning of the file to be skipped | APA Settings -> Options -> Skip offset |
| COMP38MO= | Compatible 3800 Media Origin<br>off or on<br>0: off (Default)<br>1: on | will be added to APA Settings -> Options |
| Info1= | Additional parameter 1 | APA Settings -> Custom Settings<br>Use for POD and LCDS only with Oct |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| Info2= | Additional parameter 2 | |
| ... | ... | |
| Info20= | Additional parameter 20 | |
| **[files] (LCDS)** | | |
| JDL_Name= | Name of JDL used for start command of this LCDS job | LCDS Setting -> General |
| JDE_Name= | Name of JDE used for start command of this LCDS job | LCDS Setting -> General |
| File_From= | Tape / Cartridge File to be printed from<br>(Tape / Cartridge input only)<br>Default: 1 | LCDS Setting -> General |
| File_To= | File to Default: 0 (= All Files) | LCDS Setting -> General |
| PrinterTyp= | Printer type from LCDS JSL/DJDE STOCKSET handling point of view<br>Fanfold: Fanfold Printer: Stockset is ignored<br>SCT: SCT Tool is used to define input bin numbers in resulting AFP print file<br>MediaName: Medianames (Stocknames) are used directly (without SCT) in AFP file. Not for PS55/75 or equivalent. Designed for PS 158 or higher | LCDS Setting -> Feed |
| SC_Table= | SC-Table: Name of SCT Table to be activated with PJM Call (for PrinterTyp=SCT only). Blanks must be "_" | LCDS Setting -> Feed |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| FeedMode= | MAIN or 1-16 : XEROX-like Parameter to use the input bin as specified by STOCKSET / SCT (MAIN=Default) or to use the defined bin as input bin (e.g. for test purpose) | LCDS Setting -> Feed |
| MainBin= | Integer 1-16<br>Defines the number of the special XEROX input bin called MAIN. | LCDS Setting -> Feed |
| AuxBin= | Integer 1-16<br>Defines the number of the special XEROX input bin called AUX. | LCDS Setting -> Feed |
| AuxForm_Front= | Definition of FORM / Overlay to be used in the FEED=AUX case, to be loaded on front pages, to be printed from AUX tray. This option is designed for fanfold printers | LCDS Setting -> Feed |
| AuxForm_Back= | Like AuxForm_Front for the back page of a sheet to be printed from the AUX tray. Likewise this option is designed for fanfold printers. | LCDS Setting -> Feed |

| Parameter | General Description Options and Syntax Default | Description of the corresponding GUI option Additional notes |
|---|---|---|
| PpActive=<br>PpHost=<br>PpPCCColumn=<br>PpPCCTrans=<br>PpPCCType=<br>PpCode=<br>PpRStructure=<br>PpRConstant=<br>PpRAdjust=<br>PpRLTHFLD=<br>PpRLength=<br>PpROffset=<br>PpRPostamble=<br>PpRPreamble=<br>PpBAdjust=<br>PpBLTHFLD=<br>PpBLength=<br>PpBOffset=<br>PpBPostamble=<br>PpBPreamble= | These are LCDS Preprocess parameters (Pp...). These parameters, basically speaking, overwrite the respective JDL / JDE parameters of Volume HOST,CODE and LINE statement for the LCDS converter and the input-filter related parameter of the Record (PpR...) and Block (PpB...) statements. These parameters depend on each other. Please use the PJM LCDS GUI to define and test certain PJM tickets and use these parameters, which fit to each other, for creation of OCT tickets.<br>PpActive=YES / NO switches the LCDS preprocess option on or off (Default: off) | LCDS Setting -> Preprocessing |
| ProcessCCbytes= | This option overwrites the ifilter related preprocess parameters (PpR..., and PpB) and uses any combination of ASCII control characters (oA, oC, oD) as delimiter: ASCIIskipCC Additionally this option converts these CC in IBM3211 PCC: ASCIIconvCC.<br>Default is to use neither of these modes. | LCDS Setting -> Preprocessing |

*Note:*
The description of the parameters is more detailed in the description of the PJM user interface.

## Example for an Océ Custom Ticket

```
[job]

Store=yes
St_Native=yes
St_Native_Dest=Target
Message=yes
Message_Text=This is an example job
Message_Type=dislpay

[files]

File=/u/test/deckblatt.ps
Format=PS
ft_setname=/u/test/deckblatt.imp

[files]

File=/u/test/list.ps
Format=PS
ft_setname=/u/test/twouplist.imp
ft_extra=-vdfile/$COMPOSER/kunder.var
```

# Chapter 10
# Workflows

# Workflow 'Tab Printing'

## Introduction

With tab printing you have to specify a tabset. You have to select a tabset, which corresponds to the size, number and sorting of the tab sheets inserted. The name of the tabset describes also its properties.

- **Example 1**: A4Tab03E1n: 'A4 Tabs with 3 Sheets Single Flag (1-n)'
- **Example 2**: LetTab07W1n: 'Letter Tabs with 7 Sheets Waterfall (1-n)'

Tab printing is supported in two modes:

**Printing without resource file**:

The document contains all information to insert tabs on the correct positions. There are two possibilities:

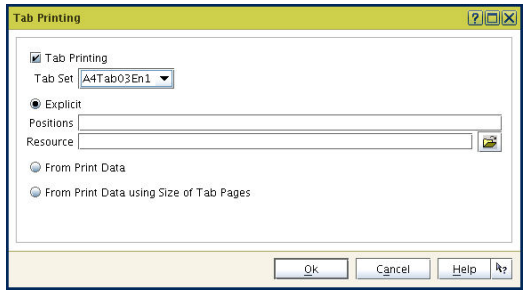
- Information on the position of the tab pages is available in the document. Setting 'From Print Data'.
- The tab pages are available in the data stream and are identified by their size. Setting 'From Print Data using Size of Tab Pages'.

**Printing with resource file** (setting 'Explicit'):

There is no information on tabs in the document to be printed.

A resource file containing tab pages must be available in addition to the print file. This resource file has been created using a special tool and has been saved as 'Resource' of the type 'Tab Resource' in the PJM 'Store' options. Under 'Positions' you indicate, before which document pages a tab page has to be inserted.

## Illustration




| UI Element | Description |
|---|---|
| 'Tab Printing' | Has to be activated to make the settings for tab printing. |
| 'Tab Set' | The required tab set is set here. |
| 'Explicit' | The positions of the tab pages are indicated explicitly. The tab pages are expected in a resource file.<br>'Positions': Indicate the pages of the input document, before which a tab page should be inserted. The input document is the document, which does not yet contain tab pages.<br>Rules for entering the position:<br>■ The single positions are separated by a semicolon.<br>■ Values must be in ascending order.<br>■ With duplex/tumble documents you have to take care that the position always refers to a front page (you cannot insert tab sheets before back pages).<br>■ The positions can be described by the following expressions ('n' is the last page of the input document):<br>integer n<br>n - integer<br>n / integer<br>n / integer - integer<br>n / integer + integer<br>n + 1<br>'Resource': Indicate a resource file, which contains only tab pages. |
| 'From Print Data' | The positions of the tab pages are already part of the data stream of the print data (makes only sense with a DPconnect file). |

| UI Element | Description |
| --- | --- |
| 'From Print Data using Size of Tab Pages' | The data stream contains pages, which can be identified as tab pages by their size. This method can only be used with special DocSetter documents. |

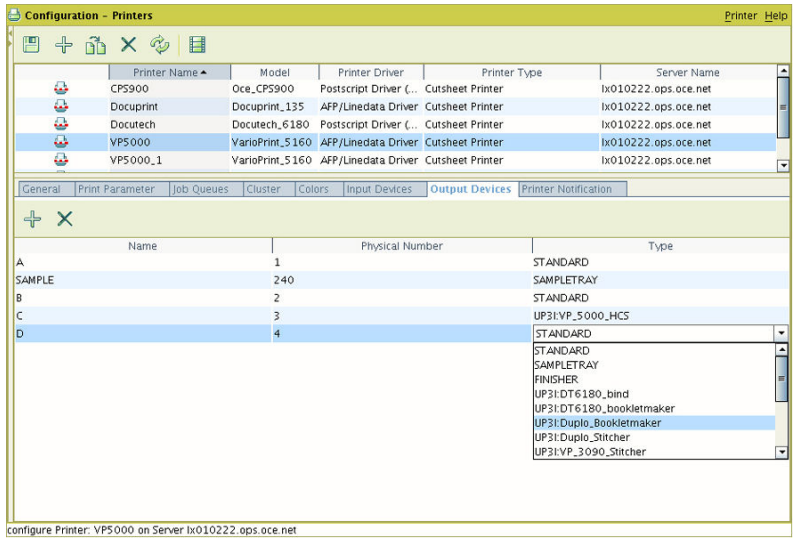
# Workflow UP³I Devices

## Introduction

The UP³I parameters are processed by the Professional Document Composer, which adds the information to the data stream.

The connection of UP³I devices is realized via a special output tray. This output tray is created in 'Configuration' -> 'Printers' -> 'Output Devices'. In the "Type" column select the UP³I device from a list.

## Illustration




## Configuration of UP³I Devices

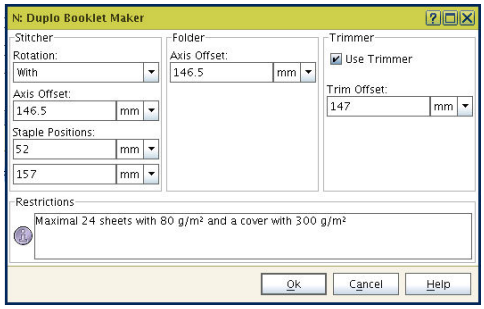
If you select the tray with the UP³I devices as 'Output Tray', the button 'UP3I Devices' becomes active in the PJM 'Job Attributes' -> 'Print' dialog.

Select 'Job Attributes' -> 'Print' -> 'UP3I Devices' to enter parameter for these devices. Every device configured in 'Configuration' -> 'Printers' -> 'Output Devices' is represented by a tab. The parameters offered refer to the device on the active tab only. You can decide for example in case of a stitcher, which corner of the paper is to be stitched or in case of an cutter you define the line for the cut.

If the output tray is changed, the PJM checks if the UP³I parameters fit to the new tray. If they don't fit, the PJM offers to remove the parameters.

The following UP³I devices can be configured:

## Duplo Booklet Maker



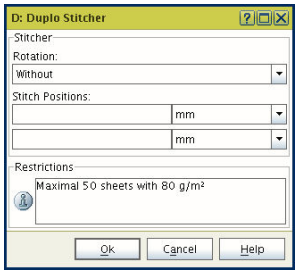

| UI Element | Description |
|---|---|
| Stitcher | **Use Stitcher**:<br>■ Activate Stitcher.<br>'Without': no rotation; 'With': Rotate by 90 degrees. The rotation works only for formats like A4, letter and similar formats.<br>**Axis Offset**<br>Distance from the outer edge to the inner edge. For recommended values see table below.<br>**Staple Positions**<br>The staples will always be positioned centric. You can influence the distance of the staples by entering values in these fields. |
| Folder | **Axis Offset**<br>Distance from the outer edge to the inner edge. For recommended values see table below. |
| Trimmer | **Use Trimmer**<br>Activate trimmer. The trimmer cuts the booklet along the open edge to avoid creeping of the pages. 'Trim Offset': Distance from the outer edge to the inner edge. For recommended values see table below. |
| Restrictions | Information on the restrictions of this postprocessing type. |

Recommend Settings for Duplo Bookletmaker:

| Format name | Format size | Printing direction | Position in Duplo | Rotation | Stitch Axis Offset | Fold Axis Offset | Staple Position A | Staple Position B | Trim Offset |
|---|---|---|---|---|---|---|---|---|---|
| **A4** | **210 x 297 mm** | **LEF** | **SEF** | **Yes** | **148,5** | **148,5** | **52** | **157** | **147** |
| A4 + | 215 x 305 mm | LEF | SEF | Yes | 152,5 | 152,5 | 54 | 162 | 149 |
| A4 SEF | 297 x 210 mm | SEF | SEF | No | 148,5 | 148,5 | 52 | 157 | 147 |
| **Letter** | **216 x 279 mm** | **LEF** | **SEF** | **Yes** | **139,7** | **139,7** | **54** | **162** | **138** |
| Letter SEF | 279 x 216 mm | SEF | SEF | No | 139,7 | 139,7 | 54 | 162 | 138 |
| Legal | 356 x 216 mm | SEF | SEF | No | 177,8 | 177,8 | 54 | 162 | 176 |
| **Ledger** | **432 x 279 mm** | **SEF** | **SEF** | **No** | **216** | **216** | **70** | **210** | **214** |
| **A3** | **420 x 297 mm** | **SEF** | **SEF** | **No** | **210** | **210** | **75** | **225** | **208** |
| A3 + | 430 x 305 mm | SEF | SEF | No | 215 | 215 | 76 | 228 | 210 |
| General | length x width | LEF | SEF | Yes | width/2 | width/2 | length/4 | length * 3/4 | width/2 - 2 mm |
| General SEF | width x length | SEF | SEF | No | width/2 | width/3 | length/4 | length * 3/4 | width/2 - 2 mm |

All values are in mm. The most common formats appear **bold**. LEF=Long edge forward. SEF=Short edge forward.

## Duplo Stitcher




| UI Element | Description |
|---|---|
| Stitcher | **Rotation**:<br>Without: no rotation; With: Rotate by 90 degrees.<br>**Stitch Positions**:<br>The staples will always be positioned centric. You can influence the distance of the staples by entering values in these fields. |
| Restrictions | Information on the restrictions of this postprocessing type. |

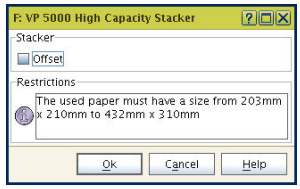
Recommended Settings for Duplo Stitcher

| Format name | Format size | Printing direction | Position in Duplo | Rotation | Stitch Position A | Stitch Position B |
|---|---|---|---|---|---|---|
| **A4** | **210 x 297 mm** | **LEF** | **LEF** | **No** | **75** | **225** |
| A4 + | 215 x 305 mm | LEF | SEF | No | 76 | 228 |
| A4 SEF | 297 x 210 mm | SEF | LEF | Yes | 75 | 225 |
| **Letter** | **216 x 279 mm** | **LEF** | **LEF** | **No** | **70** | **210** |
| Letter SEF | 279 x 216 mm | SEF | LEF | Yes | 70 | 210 |

| Format name | Format size | Printing direction | Position in Duplo | Rotation | Stitch Position A | Stitch Position B |
|---|---|---|---|---|---|---|
| Legal | 356 x 216 mm | SEF | Not passible | | | |
| **Ledger** | **432 x 279 mm** | **SEF** | | | | |
| **A3** | **420 x 297 mm** | **SEF** | | | | |
| A3 + | 430 x 305 mm | SEF | | | | |
| | | | | | | |
| General | length x width | LEF | SEF | Yes | length/4 | length * 3/4 |
| General SEF | width x length | SEF | SEF | No | length/4 | length * 3/4 |

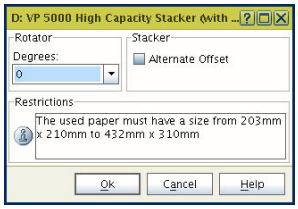
All values are in mm. The most common formats appear **bold**. LEF=Long edge forward. SEF=Short edge forward.

## VP 5000 High Capacity Stacker



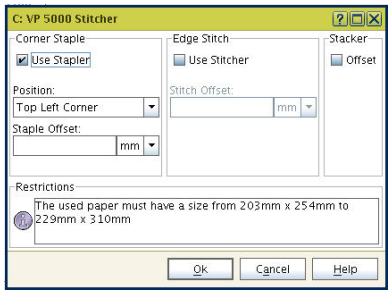

| UI Element | Description |
|---|---|
| Offset | Indicate if you wish an offset when stacking. |
| Restrictions | Information on the restrictions of this postprocessing type. |

## VP 5000 High Capacity Stacker (with Stitcher)




| UI Elemen | Description |
|---|---|
| Rotator | **Degrees**:<br>Select a rotation by 0 or 90 degrees. |
| Stacker | **Alternate Offset**:<br>Indicate if you wish an offset when stacking. |
| Restrictions | Information on the restrictions of this postprocessing type.<br>**Note**: You cannot use rotation and stacker at the same time! This leads to a paper jam. |

## VP 5000 Stitcher




| UI Element | Description |
|---|---|
| Corner Staple | **Use Stapler**:<br>Activate device. 'Position': Select the corner, where the staples should be positioned. 'Staple Offset': Enter an offset value. |
| Edge Stitch | **Use Stitcher**:<br>Activate device. 'Stitch Offset': Enter an offset value, which indicates the distance from the upper and lower edge of the paper. If nothing is entered here, the staples will be placed near the upper and bottom edge of the document. |

| UI Element | Description |
|---|---|
| Stacker | **Offset**:<br>Indicate if you wish an offset when stacking. Stacker means here the internal stacker of the stitcher. |
| Restrictions | Information on the restrictions of this postprocessing type. |

The UP³I values will be added to the ticket parameters.

# Workflow 'Color Selection'

## Introduction

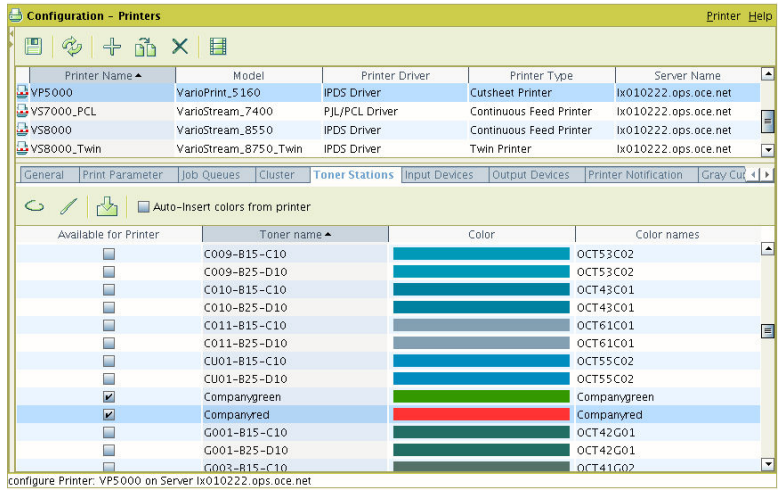
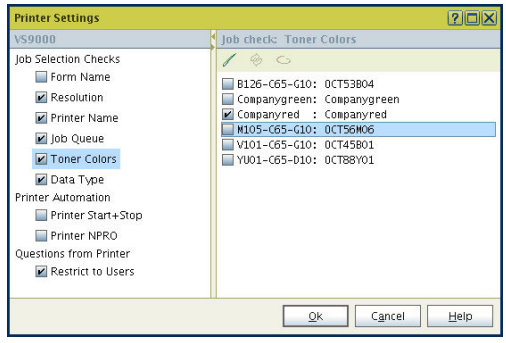
You can define the colors in the PJM to ensure, that the print job submitted is printed with the correct colors.

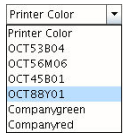
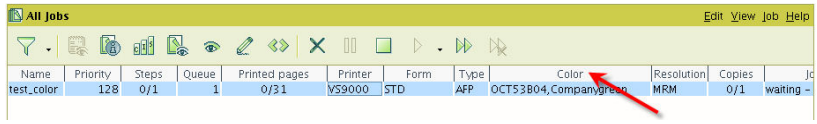
## Select Colors in the PJM

You can define the colors for the print job in the PJM dialog 'Job Attributes' -> 'Print'. The number of possible settings corresponds to the number of toner stations installed in the selected printer. You can configure this number in 'Configuration' -> 'Printers' -> 'General'. The toner colors selectable in the PJM -> 'Job Attributes' -> 'Print' dialog can be provided with the following procedure:

## Steps to configure the Printer Colors

| Step | Action |
|---|---|
| 1 | In the 'Explorer' open 'Configuration' -> 'Printers' -> 'Toner Stations': |

| Step | Action |
|---|---|
| 2 | On this tab you find a list with all toner colors currently available from Océ as well as the user defined toners which you configure under 'Configuration' -> 'Consumables' (see chapter 'Consumables' Configuration in the Océ PRISMAproduction Server Administration Settings and Tasks Guide).<br>For the selected printer check the boxes of the desired toners under 'Available for Printer'.<br>  <br><br>'Toner name' and 'Color names' of the selected toners are also displayed in the 'Printer Settings' dialog of the 'Printer Pool' application. Here you can mark those colors which should be checked before printing:<br>  <br> |

| Step | Action |
|---|---|
| 3 | In the PJM in 'Job Attributes' -> 'Print' dialog you can now select the toner color for the respective toner station of the active printer in the 'Color Selection' section:<br>  <br>'Color Selection': The color allocations configured in 'Configuration' -> 'Printers' -> 'Toner Stations' are offered here. The number of list boxes shown depends on the toner stations installed in the selected printer.<br>If you submit this print job, the color names also appear in the "Color" column of the 'All Jobs' application:<br>  |

# Workflow for scaling PDF files

## Introduction

With UNITY version 3.00.12 and higher it is possible to modify the size and position of PDF files. These modifications are only possible with PDF files because the format consists of independent single pages. PostScript as a computer language is able to produce pages with repeated program loops. This has the effect that the pages are not independent anymore and cannot be scaled as individual sheets.

You have the following possibilities for scaling:

| | |
|---|---|
| **a** | **Keep the original size of the document**:<br>It is sufficient to define the document format as paper format.<br>**Example**: The page size set for the PDF (or PS) document is DIN A4. Insert DIN A4 as paper size in the converter dialog. |
| **b** | **Use a larger paper format but keep the original size of the document**:<br>**Example**: In the converter dialog DIN A3 is set as paper format. The document in letter format is to be placed unchanged on this page. Because the target format (A3) is larger than the original format (letter), you have to define, on which position on the target page the document has to be placed. This is also required if the paper format is smaller than the size of the document. In this case the oversize contents of the documents is cut off. |
| **c** | **Scale the document to any paper format**:<br>For this purpose you have to define the desired paper format and to check the option "Fit width or height respectively" in the converter dialog. With this setting the document will be scaled proportionally until one paper edge either left or right or on top of the page is reached. You also have to define the position of the document as described below. |

You have the following possibilities for positioning:

| | | |
|---|---|---|
| Top Left | Top | Top Right |
| Left | Center | Right |
| Bottom Left | Bottom | Bottom Right |

In case **a)** the preset standard position (according to the PostScript Graphics Model: Bottom Left) is used. The document page is therefore placed in the lower left corner of the paper format.

In case **b)** you can select any position.

In case **c)** you can select several positions. Depending on whether you scale fitting to paper width or paper height, you have three different methods to position the pages:

**Scale to paper width**:
- top of paper
- center of paper
- bottom of paper

**Scale to paper height**:
- left paper edge
- center of paper
- right paper edge

*Note:*
High magnification or diminishment of the contents of the document may lead to a loss of quality of the images, because these are mostly optimized for a 1:1 reproduction.

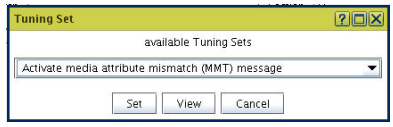
# Workflow Media Assignment to Printers

## Introduction

The following steps must be performed to make use of the Attribute based Input Media Selection (AIMS) features of a supporting printer model:

## Steps

1. Set messages flags:
   It is advisable to activate a monitoring mechanism when working with media attributes. This mechanism will issue messages in case of a mismatch of the paper types defined in Océ PRISMAproduction Server and provided by the printer. Therefore you can select a special tuning set "Activate media attribute mismatch (MMT) message" on the **Print Parameter** tab in 'Configuration' -> 'Printers'.




2. Create paper types:
   Under 'Configuration' -> 'Paper' define the papers you wish to use on your production system by entering a name and the intended media attributes. The paper names defined here will be assigned to input bins later on. It is necessary that the names and attributes match those entries defined on the target printers. Otherwise no match on media attributes will be possible. The following attributes characterize a paper

| | |
|---|---|
| Paper Name | Freeform text, but must be unique. |
| Weight | As indicated on the package |
| Color | See table below. |
| Type | See table below. |
| Size | Width (X Size), Height (Y Size) |
| Order Count | Reserved for future functions |
| Drilling | Reserved for future functions |

Available colors:

| |
|---|
| white |
| black |
| gray |

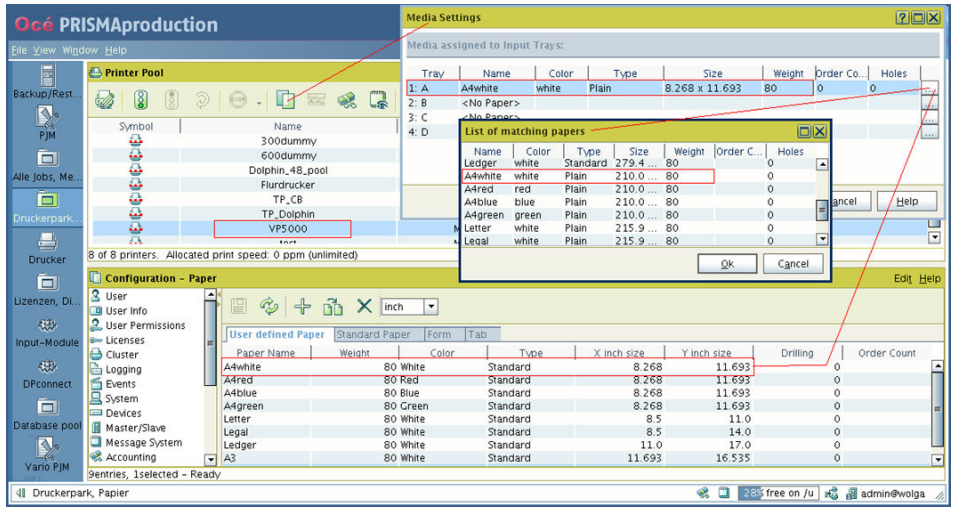
| |
|---|
| red |
| yellow |
| green |
| blue |
| turquoise |
| violet |
| orange |
| brown |
| gold |
| silver |
| noColor |
| pink |
| buff |
| ivory |
| goldenrod |
| mustard |

Available Media Types:

| |
|---|
| Standard |
| Transparentfilm |
| Precuttabulator |
| Preprinted |

3. Configuring Input Trays:
   In 'Configuration' -> 'Printers'select the 'Input Devices' tab and define for every Cutsheet printer as many input trays as the number of different medias you intend to use in your workflow.
4. Assigning media types to input trays:

In the 'Printer Pool' application select the 'Media Settings ...' icon to assign the media defined in the 'Paper' application to the input trays of the selected printer. These media can be regarded as your default media load.

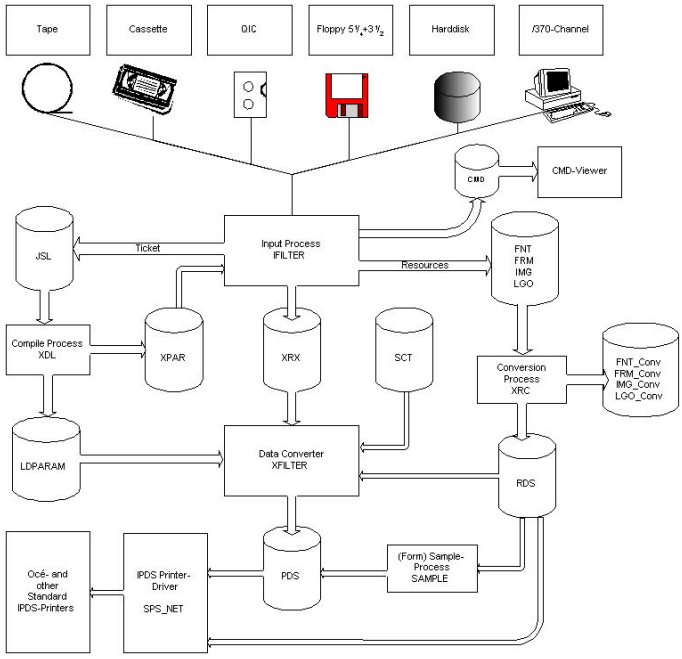


# Workflow LCDS

## Introduction

The following chapter provides a short overview on the basic steps to print an LCDS file.

## Illustration




## Step 1: Create a New Catalog

See *'LCDS-Module: 'New catalog''* on page 214.

See *'LCDS-Module: Organization of Resources'* on page 215.

## Step 2: Copy and/or Convert Resources

See *'LCDS-Module: 'LCDS Resources''* on page 217.

## Step 3: Compile JSLs

See *'LCDS-Module: 'LCDS Resources''* on page 217.

## Step 4: Print LCDS Process

You can start the print process with the PJM Explorer applet. For details see chapter "PJM" -> "Properties for LCDS file" in the Océ PRISMAproduction Server User's Guide.

### Multiple Process Chains

The use of parallel LCDS Process chains is supported from V3.10. Two typical use cases may be given here to explain the usage and advantages.

- Use Océ IPDS twin fanfold system print-while-spooling both in the twin configuration (one process chain supported in V3.0X) and 2 parallel process chains in a "two-single" configuration.
- Process (Copy, Compile, and Print (sequentially)) production data on a production catalog.
  Parallel a new test catalog may be created and resources may be copied and converted, JSLs may be edited and compiled and test print done. This test actions may be performed parallel to print process on production catalog without interfering with each other.

For details concerning use of this function for multiple process chains, please see also: chapter "LCDS Parameter Configuration" -> " Description of the JCF Parameters" in the Océ PRISMAproduction Server Administrator's Guide, for example keyword 'DeviceName1/2/3'.

## Other LCDS Options

### Form Sample

See chapter "PJM" -> "Properties for LCDS file" -> "Feed" in the Océ PRISMAproduction Server User's Guide..

### View CMD Files

You can view and delete Xerox CMD files with the $LCDS file system. Knowing the contents of these files makes it easier to adjust the required workflow for the LCDS-Module (which resources have to be loaded? Which clustering commands should be implemented in the stockset configuration?). You can open these ASCII files by double clicking them in the $LCDS and $GCI file system, which is accessible via the 'Server Files' application in the Explorer.

### Save and Restore

In order to save or restore directories or single files (esp. whole LCDS catalogs) you can use the tarscript command in the following way:
' /u/prismapro/bin/tarscript_HD <dir_name> <HD-file name> [SAVE|RESTORE]'
**Example**:
'/u/prismapro/bin/tarscript_HD /u/prismapro/data/cat/DEFAULT/tmp/examle.tar SAVE'
This HD file can easily be copied (ftp, etc.) to other computers or USB-, DVD-media.

# Chapter 11
# Backup Solutions

# Microlite BackupEDGE V2.1

## BackupEDGE: Installation and Configuration

### Introduction

Microlite BackupEDGE is the recommended backup tool within systems running Océ PRISMAproduction Server software. BackupEDGE is capable of running "scheduled backups" as well as a fully featured "disaster recovery". BackupEDGE was extensively tested and is fully compliant to run on Océ PRISMAproduction Server systems.

### Installation

**Installation of BackupEDGE**

Microlite BackupEDGE needs to be installed on every server on which backups should be made. All necessary steps to be performed for a full installation are documented in the official manual located on the Microlite BackupEDGE CD, which should be read before installation as some default parameters have to be set up during installation (but it is possible to redefine all configuration after installation).

**Update BackupEDGE**

If you have already an older installation of BackupEDGE, use the update mechanism of the installer. Deleting BackupEDGE causes a complete lost of all preconfigurations and also the connection to Océ PRISMAproduction Server. If this happened, remove the License PPS_BackupEDGE in the Océ PRISMAproduction Server License Manager, save Licenses and add the License again.

**BackupEDGE License**

Océ Printing Systems GmbH offers a special license agreement with Microlite to the customers of Océ PRISMAproduction Server. This means the license for BackupEDGE will be installed and handled by Océ PRISMAproduction Server. The license for BackupEDGE can be ordered like any other license for Océ PRISMAproduction Server and will be installed in the same way. The required license string is "PPS_BackupEDGE" V2.0. This license also enables the integration of BackupEDGE with Océ PRISMAproduction Server software (automatic start/stop Océ PRISMAproduction Server when performing scheduled backups).

**Demo License**

After installing BackupEdge it will work 60 days as an evaluation copy with FULL FUNCTIONALITY. For permanent use of BackupEDGE, the product must be licensed and furthermore NO change in configuration already made is necessary.

## Configuration

### Recommended usage of Backup Media

Océ has extensively tested Microlite BackupEDGE with different media. In order to create reliable backups, Océ recommends to use tape drives. The tests also showed, that using DVD's as backup medias is NOT RECOMMENDED as the media are too damageable.

### Disaster Recovery

Microlite BackupEDGE offers the functionality to create a full disaster recovery backup which consists of a bootable media and the backup data. In order to use the disaster recovery functions, it is necessary to create a bootable media and to perform an unscheduled full backup afterwards, so that this backup can easily restore the entire server after a crash. Please see the Microlite BackupEDGE manuals on how to create a bootable media and on how to perform an unscheduled full backup.

*Note:*
Please note that every time the hard disk or hardware configuration is changed in a way that new / different partition tables are set up or new hardware kernel driver modules have to be used, a COMPLETE set of disaster recovery media must be created! Also all backups referring to the old hardware setup of the server are NOT usable anymore!

### Further Information and Tips

As for every backup, it is absolutely recommended, to stop Océ PRISMAproduction Server before performing any backup operation! This is necessary to stop all database services and prevent backup of print jobs in progress, which would result in a backup of just parts of jobs and other related data, which makes such a backup useless! All necessary information about starting/stopping Océ PRISMAproduction Server for backup is provided in the next chapter.

# Connectivity to Océ PRISMAproduction Server

## Introduction

With Océ PRISMAproduction Server some predefined configurations will be provided, which will configure some basic setups and also checkup scripts. BackupEDGE provides an interface to create own Backup Sets or import predefined Backup Sets. Important hereby is the fact, that such Backup Sets can also execute commands (such as to automatically request to stop Océ PRISMAproduction Server before starting the backup). Please see the BackupEDGE manual on how to create your own Backup Sets or import those provided by Océ PRISMAproduction Server.
In detail:
BackupEDGE provides three different scripts in the /etc directory, which are named:

- '/etc/edge.start' (is executed BEFORE starting a backup)
- '/etc/edge.passed' (is executed AFTER SUCESSFULLY finished a backup)
- '/etc/edge.failed' (is executed AFTER the backup failed for any reason)

Within these scripts, commands can be executed or complete own scripts can be inserted or called. The scripts can be used for any user defined actions to be done before or after the backup.

*Note:*
This functionality will only work for executing “scheduled backups” with BackupEDGE. Performing an “Unscheduled Full Backup” will not execute commands in any start/stop file, this (for example stop Océ PRISMAproduction Server) has to be done MANUALLY in this case.
BackupEdge will use the RETURN Code of "edge.start" to control further processing, which means that a RETURN CODE equal "0" will start the backup, while a RETURN CODE NOT equal "0" will skip the backup.
Océ PRISMAproduction Server will NOT touch any existing customer configuration, which exists on the server when Océ PRISMAproduction Server is installed. However, the above mentioned three files will be replaced (overwritten) by Océ PRISMAproduction Server enabled configuration if the files are not changed from the installed default performed by BackupEdge itself. AND: The above mentioned scripts are preconfigured within the default installation of BackupEDGE and will executed within the default backup domain "system" only (without explicit reconfiguration this is default!). For information about usage and configuration of backup domains please see the BackupEDGE documentation chapter 21, which covers this issue in more detail.
If an existing customer configuration of BackupEdge exists on the server when installing Océ PRISMAproduction Server software, the files will NOT be replaced. The Océ PRISMAproduction Server enabled files will be located also in path '/u/prismapro/lib/backupEdgeconnector/' in any case.

## Description of the Preconfigured Backup Sets of Océ

Two scripts will be provided by Océ PRISMAproduction Server itself. These scripts have the functionality to start and stop Océ PRISMAproduction Server. The scripts are installed in directory:
'/u/prismapro/lib/backupEdgeConnector'

*Note:*
If you want to use the preconfigured backup sets with BackupEDGE software running in DEMO mode, please copy all files with name beginning with “edge.” located in '/u/prismapro/lib/backupEdgeConnector' to the '/etc/ directory' and edit them for your requirements. Then the scripts will be used the same way as if the Océ license is installed. Also all changes to these files will be preserved if the Océ license will be installed afterwards.

Detailed description of the provided functionality of the scripts:

**startPrisma < -f | -p >**

This script just checks for Océ PRISMAproduction Server running and if not it will be started and a message is sent to Océ PRISMAproduction Server. It has to be inserted/executed in both scripts '/etc/edge.passed'Océ PRISMAproduction Server and '/etc/edge.failed'.

The parameter MUST be set to:

"-f" in file' /etc/edge.failed' and
"-p" in file '/etc/edge.passed'.

This will create a single Océ PRISMAproduction Server message if the backup was successfully completed or failed and a failure log file will be created in:
' /u/prismapro/diag/backupEdgeConnector'

**stopPrisma**

This script must be called in file '/etc/edge.start' to stop Océ PRISMAproduction Server BEFORE starting the backup. At time of execution the script opens a popup message window to all Océ PRISMAproduction Server 'Explorer' windows.

*Note:*
The message request window is opened on ALL (more than one if opened for example by the Launcher) 'Explorer' windows. The first person to answer the request will "shut-down" Océ PRISMAproduction Server or "cancel" the Backup or whatever action can be selected!!!
**Please make sure not to interrupt any running jobs from other users!!!**
It is NOT possible to use script "stopPrisma" WITHOUT any parameter. An empty parameter set will only create an error for a "missing parameter"!

The possible parameters are:

| Parameter | Description |
|---|---|
| -a MIN: | Automatic Stop of Océ PRISMAproduction Server and start of backup in MIN minutes |
| -s: | Interactive, user is allowed to stop directly the timeout |
| -c: | Interactive, user is allowed to cancel the backup, only in combination with "-a" or "-s" |
| -t MIN: | Timeout if no user response in MIN Minutes, only in combination with "-c", but not with "-a" |
| -w SMIN: | Interactive, user is allowed to shift stop and wait of extra MIN Minutes, only in combination with "-a" or "-t" |
| -m MAX: | Extention to "-w", MAX times shift can be done |

Minimum Parameter SET is at least "-a MIN" or "-s"!

Parameter <MIN> is the time in minutes to wait for confirmation by the user.

The parameter sets within the script are based on two different methods in handling. All sets based on parameter "a" will automatically stop Océ PRISMAproduction Server and start the backup, while all sets based on parameter "s" will NOT stop Océ PRISMAproduction Server automatically and therefore not start the backup, there will have to be a dedicated interaction to do so. Also there are additional parameters and sets of, to allow better control and handling and also reduced permissions.

## Parameter Sets and their Effects

Parameter "-a" will AUTOMATICALLY stop Océ PRISMAproduction Server after <MIN> minutes if NO USER ACTION was done and start the backup process.
It is possible to combine parameter to "-a <MIN> -s" to allow users to stop Océ PRISMAproduction Server and proceed with backup IMMEDIATELY.
Parameter "-a <MIN> -c" will allow users to cancel the timeout and to skip the backup for this scheduled item.
Parameter set "-a <MIN> -sc" will allow the user to choose between both options.
It is also possible to create an extra delay with parameter "-w" which will allow users to shift the operation for <SMIN> minutes for a single appearance. With additional parameter "-m <MAX>" it is possible to allow multiple times to shift for <SMIN> minutes but only for <MAX> times.
Parameter "-s" will allow the user to start the backup manually. The pop up displayed will remain and wait "FOREVER" and it is NOT possible to CANCEL the operation. This is intended for use to allow only a manual start of the backup.
The parameter set "-sc" will also create a popup window "FOREVER" but will allow to cancel the operation completely.
The parameter "-sct <MIN>" will add a timeout to the operation. If the backup is NOT started MANUALLY within <MIN> time, the backup will be canceled AUTOMATICALLY. It is also possible to create an extra delay with parameter "-w" which will allow users to shift the operation for <SMIN> minutes for a single appearance. With additional parameter "-m <MAX>" it is possible to allow multiple times to shift for <SMIN> minutes but only for <MAX> times.

A set of examples for possible combinations is located in the file '/etc/edge.start' which can be used by just removing the comment character.

*Note:*
It is ONLY possible to use a single combination, so MAKE SURE to have ONLY a single command active at a time.

# Océ PRISMAproduction Server Backup (Additional Software)

## Océ PRISMAproduction Server Backup: Tasks and Components

### Introduction

The Océ PRISMAproduction Server Backup version 1.00.00 is an additional software, which is delivered with Océ PRISMAproduction Server. To enable its function, the software has to be installed on the master of an Océ PRISMAproduction Server cluster only. The existing system is not changed.

### Tasks

In general, the Océ PRISMAproduction Server Backup allows to backup all or part of the data of an Océ PRISMAproduction Server cluster and

- either to **restore** it in an identical configuration - same cluster, same Operating System, same main Océ PRISMAproduction Server version
- or to **import** it to a different configuration - different Operation System, different (newer) Océ PRISMAproduction Server version, but same cluster regarding host names and IP addresses

The creation of a backup is supported for Océ PRISMAproduction Server versions 3.00, 3.02, 3.04, 3.10, 4.0. Restoring is supported within identical versions. Importing is supported in the same or higher versions. As migration tool it is mainly intended to perform the import of a Caldera environment in SuSE (for example to versions 3.04, 3.10).

The current version of Océ PRISMAproduction Server Backup is a supplement for Configuration Backup/Restore of Océ PRISMAproduction Server. The Océ PRISMAproduction Server Backup does not replace the functionality of the Configuration Backup/Restore of Océ PRISMAproduction Server. Océ PRISMAproduction Server Backup only saves and writes back configuration backups already created from the Configuration Backup/Restore. Therefore you have to use Configuration Backup/Restore within Océ PRISMAproduction Server to save your configuration data.

### Components

The **prismabackup** package consists of two RPM's:

**Server**: **oce-sys-prismabackup.rpm**
**Client**: **oce-sys-prismabackup_client.rpm**

The two RPM's must be installed on the Océ PRISMAproduction Server Master server and don't interfere with Océ PRISMAproduction Server itself. The RPM's are located on the Océ PRISMAproduction Server installation CD.

**Server**

The **Server** package installs a **command line client**, which acts as user front end as well as a server, which collects all necessary data for the backup/restore action initialized by the client.

A **StorageManager** writes the backup data directly to a connected network drive.

These are the plug-ins defined in Océ PRISMAproduction Server Backup and they deal with the following type of data:

- **LCDS_APA_PrintResourcesPlugin**: with all resources for LCDS in the cluster
- **AFP_PrintResourcesPlugin**: with all resources for APA in the cluster
- **POD_ComposerResourcesPlugin**: with the impositioning sets of the POD language module in the cluster
- **POD_UnityRipResourcesPlugin**: with the resource files needed by the PostScript rippers in the cluster
- **OS_ConfigurationPlugin**: with the Operating System configuration data.
  **Important**: This plug-in is very special regarding the impact of the data it deals with. The data it backs up are considered as "cannot be restored or imported directly". The reuse of the data is planned to be done manually (for example, think of the consequences of the replacement of the '/etc/hosts' file)
- **ConfigurationPlugin**: with the Océ PRISMAproduction Server configuration database backups, all configuration backups are included in the system backup
  **Important**: The current version of the Océ PRISMAproduction Server Backup only saves and writes back configuration backups already created from the Configuration Backup/Restore. Selecting the ConfigurationPlugin in Océ PRISMAproduction Server Backup does not create a configuration backup. When restoring or importing with Océ PRISMAproduction Server Backup, the configuration saved with the Configuration Backup/Restore is only written to the respective directory on the master. Before you create a new backup with Océ PRISMAproduction Server Backup it is advised to create a new configuration backup in Océ PRISMAproduction Server. This ensured that the system backup contains the current configuration data.
- **JobsPlugin**: with the jobs currently spooled in may be included in the backup
- **PFL_ArchivesPlugin**: with the Print File Libraries in the cluster (currently no import is possible from versions 3.00, 3.02 or 3.04 into version 3.10 or 4.0).
- **UserHomesPlugin**: with the home directories of all/selected users in the cluster
- **MiscellaneousPlugin**: with the configuration data of '/u/prismapro/cfg'

**Important**: This plug-in is very special regarding the impact of the data it deals with. The data it backs up are considered as "cannot be restored or imported directly". The reuse of the data is planned to be done manually.

### Client

The Client package installs the Graphical User Interface. The GUI is a graphical representation of the command line client of the server and must therefore like the server also be installed on the master of a cluster. For technical reasons this GUI cannot be used with Océ PRISMAproduction Server V3.00.

# Océ PRISMAproduction Server Backup: Installation and Workflows

## Installation

### Server

Install the Océ PRISMAproduction Server Backup Server package by using the rpm utility:

| Step | Action |
|---|---|
| 1 | copy the RPM oce-sys-prismabackup.rpm to a temporary directory |
| 2 | change to the temporary directory and call:<br>- 'rpm -ihv oce-sys-prismabackup' ... to **install** the package<br>- 'rpm -e oce-sys-prismabackup' ... to **remove** the package |

After having successfully installed the package you'll find a directory '/usr/local/prismabackup'. It contains all static components and configuration data and is later on also used for data created dynamically and as mount point for the actual network drive used by the storage manager.

### Client

Install the Océ PRISMAproduction Server Backup Client package by using the rpm utility:

| Step | Action |
|---|---|
| 1 | copy the RPM oce-sys-prismabackup_client.rpm to a temporary directory |
| 2 | change to the temporary directory and call:<br>- 'rpm -ihv oce-sys-prismabackup_client' ... to **install** the package<br>- 'rpm -e oce-sys-prismabackup_client' ... to **remove** the package |

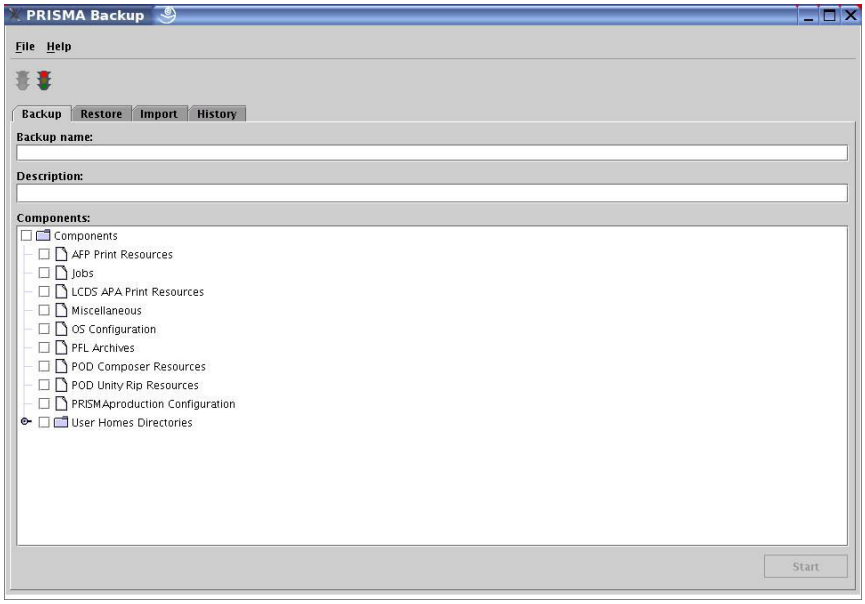
After having successfully installed the client package you'll find a directory '/usr/local/prismabackup'.
It contains the start script and the executable program files for the GUI.

## Graphical User Interface

Do the following to start the System Backup window:

- Login as root user on the master server.
- Open a Linix shell and change to the following directory: '/usr/local/prismabackup'

- Start the UI with: './prismabackup_gui.py'.




## General Notes

If you start a Backup or a Restore/Import, Océ PRISMAproduction Server will be shut down automatically.
When closing the window, it is checked if Océ PRISMAproduction Server is still down an you will get a notice and the possibility to restart the system.
Additionally you can stop and start Océ PRISMAproduction Server via the traffic light icons in the toolbar.

The Backups are written to the following predefined path: '/usr/local/prismabackup/mount-dir'.

## Backup and Restore Workflows

### General

If you start a Backup or a Restore/Import, Océ PRISMAproduction Server will be shut down automatically.
When closing the window, it is checked if Océ PRISMAproduction Server is still down an you will get a notice and the possibility to restart the system.
Additionally you can stop and start Océ PRISMAproduction Server via the traffic light icons in the toolbar.

The Backups are written to the following predefined path: '/usr/local/prismabackup/mountdir'.

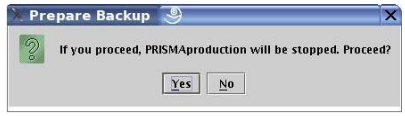
### Create a Backup

To create a Backup, the following steps have to be performed:

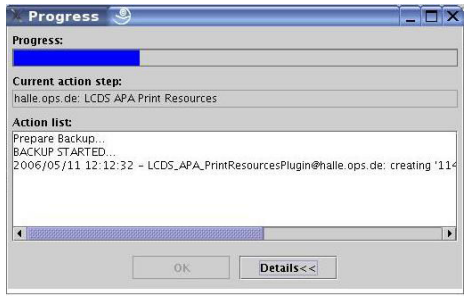
- Type in a 'Backup name' (mandatory, without blanks).
- Type in a 'Description' (optional, without blanks).
- Select at least one component.
- The Backup Start button now gets active. Press this button to start the backup of the selected components.

*Note:*
If 'Océ PRISMAproduction Server Configuration' is selected as a component, you will be asked to check if an configuration backup is already existant. You have to confirm this dialog with 'OK'.
Under 'User Home Directories', you can only select users, which are Océ PRISMAproduction Server users and at the same time have a Linux account.

When you start a backup, a message informs you that Océ PRISMAproduction Server is shut down. You have to confirm the message to proceed:




During backup, a progress bar is displayed. Depending on the amout of resources to be saved, this process might take a while.




If the backup is finished, the progress bar turns green. You have to close this dialog with 'OK' or you can check the details of the process in this window.

### Restore a Backup

To restore a backup, you have to perform the following steps:

- Select the 'Backup path'. You don't have to indicate "mountdir" in this case.
- Under 'Available backup' all backups in the selected path are listed. Select the backup which you want to restore. Using the waste bin button, you can also delete selected backups.
- After selecting an available backup, the components included are shown in the 'Components' section of the window. This allows you to select single components for the restore. If you click on the tree nodes, the servers of the Océ PRISMAproduction Server system are displayed on the first level. This allows you to deselect single servers. Note that the deselection is only valid for the component which is selected in the level above.
- If a backup and at least one component is selected, the 'Start' button gets active. Press this button to start the restore process.

*Note:*
You can only restore backups, which have the same main version number as the current Océ PRISMAproduction Server system.
All server names and corresponding IP addresses of the current system must be identical with the server names and IP addresses of the system from which the backup has been performed.
The restore of jobs can only be performed on an identical system:
- same server name
- same IP addresses
- same configuration of the print servers

The components 'OS Configuration' and 'Miscellanous' cannot be restored with this GUI. If you need information on how to extract the contents of these components, please contact your local service engineer.

## Importing Components from Older Versions

In contrast to 'Restore' you can use 'Import' to import components from older versions, for example from V3.02 to V3.10.

If the entry 'Do not overwrite existing files' is activated, files which have the same name will not be overwritten. Files with a different name will be stored.

## History

The 'History' view shows the list of all actions which have been performed on the system. You can filter this list if you either activate 'Backup', 'Restore', 'Import' or 'Error'. If you select 'Error' only these actions will be listed which have an error in their 'Status' column.

# Océ PRISMAproduction Server Backup: Command Line Client

## Introduction

The client included in the prismabackup package is a Python script, which performs a few functions directly (like preparing Océ PRISMAproduction Server for the Backup).

## Command Line Script

Name of the command line script: **prismabackup.py**

**Usage**: 'prismabackup.py <command> <options>'
**Details**: 'prismabackup.py -h[?] <command>'

Overview of commands the script can perform:

| Command | Performs |
|---|---|
| -h,? | displays this page |
| -v | displays version |
| PrepareBackup | prepares current Océ PRISMAproduction Server for Backup creation |
| CreateBackup | creates a Backup |
| PrepareRestore | prepares current Océ PRISMAproduction Server for the restore of a Backup |
| Restore | restores a Backup |
| PrepareImport | prepares current Océ PRISMAproduction Server for the import of a Backup |
| Import | imports a Backup |
| History | displays the backup/restore/import history |
| SearchBackups | searches for Backups |
| Delete | deletes a Backup |
| GetPlugins | shows all possible plug-ins |
| GetPluginContents | shows contents of a plug-in |
| CreateSystemInfo | creates system information file for Backup |

*Note:*
In the detailed descriptions below the following is true:

- Command options in square brackets are optional
- <string> represents an arbitrary string with no length restriction. If it contains special characters it must be included in double quotes
- <string list> represents a comma separated list of arbitrary strings with no length restriction (but without comma). If it contains special characters the whole list must be included in double quotes
- Strings enclosed in single quotes represent themselves, i.e. they must be entered as is (without the single quotes)
- Default values are underlined. Normally this is the value of the option if the option is not defined at all
- **The sequence of the command line parameters is significant, they must be entered in the order how they are described in this document - respective the help information displayed by the commands themselves**

Create a Backup

## Create a Backup

All directories / files defined in a template specific for the current Océ PRISMAproduction Server version are collected from the servers of the cluster and written to a storage device (at the moment only a mounted network drive is supported).
The data to be collected is defined specifically for each server type: Master, Slave and PrintSlave. During runtime data may be excluded from the backup process:

- either by including only certain plug-ins (command option '-plugins') - only the data supported by the plug-ins listed will be included
- and/or by including only certain users for the UserHomesPlugin (command option '-users')

As for data integrity reasons the Océ PRISMAproduction Server Master server must be shut down before performing the backup, the information about the current configuration and status needed for the backup process is read from a properties file. It is named systeminfo.properties and contains information about the Océ PRISMAproduction Server version, the cluster, the logical library paths and users.
This file is created automatically during the preparation step for a backup, but it can also be created manually by any text editor. The latter allows the creation of "emergency backups" in case the Océ PRISMAproduction Server system is not fully operable.

**Summary**:

The backup process is performed in two steps:

| Step | Action | Remarks |
|---|---|---|
| 1 | 'PrepareBackup' | The properties file is created and Océ PRISMAproduction Server is shut down. |
| 2 | 'CreateBackup' | The system state is checked. If okay (= Océ PRISMAproduction Server is down on Master server and up on all Slave/PrintSlaves), the data is collected and stored by the storage manager. |

A backup can be created in all versions of Océ PRISMAproduction Server (3.00, 3.02, 3.04, 3.10, 4.0).

Description of the 'PrepareBackup' options: No options.

Description of the 'CreateBackup' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| -name | <string> | Name of the backup |
| [-description] | <string> | Description of the backup |
| [-plugins] | <string list> | List of plug-ins. The backup is only created for the plug-ins defined in this list<br>Default: all plug-ins |
| [-jobs] | 'all' | 'all' ..<br>The complete job data base is included (for example only all or nothing)<br>Default: No jobs are backed up |
| [-users] | 'all' \| <string list> | 'all' ..<br>The home directories of all users visible in 'Configuration' -> 'User', are backed up (if the individual directory actually exists)<br><string list> ..<br>The home directories of the users listed are backed up (if the individual directory actually exists)<br>Default: No home directories are backed up |

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-haltonerror] | 'true' \| 'false' | 'true' ..<br>The backup process is stopped when an error occurs. The data already collected will be accessible but may be incomplete<br>'false'..<br>The backup process continues with the next plug-in when an error occurs. The backup data of the plug-in in error may be incomplete<br><br>*Note:*<br>Errors are reported on the console and logged in the Océ PRISMAproduction Server Backup log file. |

Example console output for a Backup run (in Océ PRISMAproduction Server V 3.00):

```
[root@isny prismabackup]# ./prismabackup.py Prepare                    1
prismabackup Prepare: File 'systeminfo.properties' has been created.   1.1
prismabackup Prepare: File 'jobinfo.properties' has been created.      1.2
prismabackup Prepare: Stopping PRISMAproduction...                     1.3
prismabackup Prepare: PRISMAproduction stopped.


[root@isny prismabackup]# ./prismabackup.py CreateBackup               2
                          -name "Foo Backup" -template cfg/backuptemplate_300.xml

BACKUP STARTED......

02/08/05 08:42:32 - LCDS_APA_PrintResourcesPlugin@isny.ops.de:  creating   2.1
                    '1122964952130/isny.ops.de-LCDS_APA_PrintResourcesPlugin.tgz'
02/08/05 08:42:44 - LCDS_APA_PrintResourcesPlugin@isny.ops.de:  plugin total time: 011.894
02/08/05 08:42:44 - LCDS_APA_PrintResourcesPlugin@bogen.ops.de: creating   2.2
                    '1122964952130/bogen.ops.de-LCDS_APA_PrintResourcesPlugin.tgz'
02/08/05 08:42:47 - LCDS_APA_PrintResourcesPlugin@bogen.ops.de: transferring 2.3
                    '1122964952130/bogen.ops.de-LCDS_APA_PrintResourcesPlugin.tgz'
02/08/05 08:42:48 - LCDS_APA_PrintResourcesPlugin@bogen.ops.de: plugin total time: 004.068
02/08/05 08:42:49 - AFP_PrintResourcesPlugin@isny.ops.de:       creating
                    '1122964952130/isny.ops.de-AFP_PrintResourcesPlugin.tgz'
02/08/05 08:43:00 - AFP_PrintResourcesPlugin@isny.ops.de:       plugin total time: 011.447
02/08/05 08:43:00 - AFP_PrintResourcesPlugin@bogen.ops.de:      creating
                    '1122964952130/bogen.ops.de-AFP_PrintResourcesPlugin.tgz'
02/08/05 08:43:11 - AFP_PrintResourcesPlugin@bogen.ops.de:      transferring
                    '1122964952130/bogen.ops.de-AFP_PrintResourcesPlugin.tgz'
02/08/05 08:43:13 - AFP_PrintResourcesPlugin@bogen.ops.de:      plugin total time: 012.529
                      .
                      .
                      .
02/08/05 08:43:23 - PFL_ArchivesPlugin@isny.ops.de:             creating
                    '1122964952130/isny.ops.de-PFL_ArchivesPlugin.tgz'
02/08/05 08:43:26 - PFL_ArchivesPlugin@isny.ops.de:             plugin total time: 002.778
02/08/05 08:43:26 - PFL_ArchivesPlugin@bogen.ops.de:            creating
                    '1122964952130/bogen.ops.de-PFL_ArchivesPlugin.tgz'
02/08/05 08:43:26 - PFL_ArchivesPlugin@bogen.ops.de:            transferring
                    '1122964952130/bogen.ops.de-PFL_ArchivesPlugin.tgz'
02/08/05 08:43:26 - PFL_ArchivesPlugin@bogen.ops.de:            plugin total time: 000.454

BACKUP FINISHED SUCCESSFUL
total time: 055.792 seconds                                             2.4
```

| Step | Action |
|---|---|
| 1 | Preparation step: |
| 2 | Data from the configuration database has been extracted to "systeminfo.properties" |
| 3 | Océ PRISMAproduction Server is stopped for the oncoming Backup run |
| 4 | Actual Backup step: it's a backup for version 3.00, the appropriate template is requested (could also be omitted as the default is the template for the current version) |
| 5 | The LCDS resources plug-in is the first called and backs up the data on the Master server. The time needed to create the tar library and to write it to the external storage device is reported |
| 6 | The LCDS resources are also collected on the Slave server |
| 7 | There is an additional information line here in the console log reporting the transfer of the tar library. This occurs only for backups in version 3.00, as the automatic routing of the tar output directly to the Master server doesn't work and the tar library must be intermediately stored on the Slave |
| 8 | The overall time needed to create the backup is reported |

## Restore a Backup

The directories / files collected in the backup are restored to a system with identical Operation System, the identical Océ PRISMAproduction Server cluster and the identical Océ PRISMAproduction Server main version. Identical cluster means host names and IP addresses must be identical.
A backup is identified by its Backup ID which is generated internally when the backup is created. To scan for existing backups use the SearchBackups command described below.
As default all data in the backup is restored. However a selective restore is possible based on:

- either by including only data of certain plug-ins (command option '-plugins')
- and/or by including only the data of certain servers (command option '-servers')

*Note:*
The restore operation is only supported in version 3.04, 3.10 and 4.0. Backup data of version < 3.04 can only be imported.
When restoring only part of the data the user is responsible for data integrity.

As for data integrity reasons the Océ PRISMAproduction Server Master server must be shut down before performing the restore, the information about the current configuration and status is read from the **systeminfo.properties** file. This file is created automatically during the preparation step for the restore, but it can also be created manually by any text editor. The latter would allow a restore in case the Océ PRISMAproduction Server system is not fully operable.

**Summary**:

The restore process is performed in two steps:

| Step | Action | Remarks |
|---|---|---|
| 1 | 'PrepareRestore' | The properties file is created and Océ PRISMAproduction Server is shut down. |
| 2 | 'Restore' | The system state is checked. If okay (= Océ PRISMAproduction Server is down on Master server and up on all Slave/PrintSlaves), the data is collected and stored by the storagemanager. |

Description of the 'PrepareRestore' options: No options

Description of the 'Restore' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| -backupID | <string> | -backupID |
| [-plugins] | <string list> | List of plug-ins. The restore is only created for the plug-ins defined in this list Default: all plug-ins |
| [-servers] | <string list> | List of Océ PRISMAproduction Server servers. The restore is only performed for the servers defined in this list Default: all servers |
| [-jobs] | 'all' | 'all' ..<br>The complete job data base is to be restored (for example only all or nothing)<br>Default: No jobs are restored<br><br>*Note:*<br>**-jobs** and **-servers** options are mutually exclusive. Reason: the job information is distributed among all servers. Therefore jobs can only be restored into an identical Océ PRISMAproduction Server cluster. |
| [-users] | 'all' \| <string list> | 'all' ..<br>The home directories of all users in the backup are restored <string list>.. the home directories of the users listed are restored.<br><string list> ..<br>The home directories of the users listed are restored.<br>Default: No home directories are restored |

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-haltonerror] | 'true' \| 'false' | 'true' ..<br>The restore process is stopped when an error occurs. The directories/files already restored remain untouched<br>'false'..<br>The restore process continues with the next plug-in when an error occurs. The restored directories/files of the plug-in which raised the error may be incomplete<br><br>*Note:*<br>It's up the user to ensure data integrity when there are errors during the restore process. Errors are reported on the console and logged in the Océ PRISMAproduction Server Backup log file. |

## Import a Backup

The directories / files collected in the backup are imported in a system with a different Operation System and / or a different Océ PRISMAproduction Server cluster (but with identical host names and IP addresses) and / or a different Océ PRISMAproduction Server main version.
A backup is identified by its Backup ID which is generated internally when the backup is created. To scan for existing backups use the SearchBackups command described below.
As default all data in the backup is imported. However a selective import is possible based on:

- either by including only data of certain plug-ins (command option '-plugins')
- and/or by including only the data of certain Océ PRISMAproduction Server servers (command option '-servers')

*Note:*
The import operation is only supported in version 3.04, 3.10 and 4.0. Only Backup data of versions less than the current version can be imported.
When importing only part of the data the user is responsible for data integrity.

As for data integrity reasons the Océ PRISMAproduction Server Master server must be shut down before performing the import, the information about the current configuration

and status is read from the **systeminfo.properties** file. This file is created automatically during the preparation step for the import, but it can also be created manually by any text editor. The latter would allow an import in case the Océ PRISMAproduction Server system is not fully operable.

**Summary**:

The import process is performed in two steps:

| Step | Action | Remarks |
|---|---|---|
| 1 | 'PrepareImport' | The properties file is created and Océ PRISMAproduction Server is shut down. |
| 2 | 'Import' | The system state is checked. If okay (= Océ PRISMAproduction Server is down on Master server and up on all Slave/PrintSlaves), the data is collected and stored by the storagemanager. |

Description of the 'PrepareImport' options: No options.

Description of the 'Import' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| -backupID | <string> | Identifier of the backup as generated when the backup was created. |
| [-mode] | 'keep-files' | 'keep-files' .. Don't overwrite existing files Default: overwrite files. |
| [-plugins] | <string list> | List of plug-ins. The import is only created for the plug-ins defined in this list. Default: all plug-ins |
| [-servers] | <string list> | List of Océ PRISMAproduction Server servers. The import is only performed for the servers defined in this list Default: all servers |

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-jobs] | 'all' | 'all' ..<br>The complete job data base is to be imported (for example only all or nothing)<br>Default: No jobs are imported<br><br>*Note:*<br>**-jobs** and **-servers** options are mutually exclusive. Reason: the job information is distributed among all servers. Therefore jobs can only be imported into an identical Océ PRISMAproduction Server cluster. |
| [-users] | 'all' \| <string list> | 'all' ..<br>The home directories of all users in the backup are restored <string list>.. the home directories of the users listed are imported.<br><string list> ..<br>The home directories of the users listed are imported.<br>Default: No home directories are imported |

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-haltonerror] | 'true' \| 'false' | 'true' ..<br>The import process is stopped when an error occurs. The directories/files already imported remain untouched<br>'false'..<br>The import process continues with the next plug-in when an error occurs. The imported directories/files of the plug-in which raised the error may be incomplete<br><br>*Note:*<br>It's up the user to ensure data integrity when there are errors during the import process. Errors are reported on the console and logged in the Océ PRISMAproduction Server Backup log file. |

## History

To be able to understand what happened on an Océ PRISMAproduction Server system regarding Océ PRISMAproduction Server Backup, a history file is maintained. Unlike the backups which are controlled by the storage manager the history file is stored inside the Océ PRISMAproduction Server structure (because it's Océ PRISMAproduction Server s "memory", not that of the storage manager).
By using the 'History' command one can see in chronological order which backup / restore / import operations have been executed in the current Océ PRISMAproduction Server system.
For convenience reasons only parts of the history (for example: all erroneous attempts) can be listed.

Description of the 'History' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-select] | 'all'<br>\| 'backup'<br>\| 'restore'<br>\| 'import'<br>\| 'error' | Type of history entries. |

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-file] | <string> | Location of the history file.<br>Default: current history file<br>' /u/prismapro/cfg/prismabackup/history.xml' |

The following parameters are displayed for each backup found:

| | |
|---|---|
| Date/Time | Date and time when the operation has been performed. |
| Backup ID | Identifier of the backup. |
| Type of Operation | Backup / Restore / Import. |
| Mount Point | Where data has been stored / retrieved from. |
| Result of Operation | Whether the operation was successful or an error occurred. |

Example console output for a 'History' call:

```
[root@isny prismabackup]# ./prismabackup.py History
2005/07/04 15:13:45   1120482825821  backup /usr/local/prismabackup/mountdir     Successful
2005/07/26 17:18:19   1122391099308  backup /usr/local/prismabackup/mountdir     Successful
2005/08/02 08:42:32   1122964952130  backup /usr/local/prismabackup/mountdir     Successful
          1                  2       3                  4                          5
```

Three backups have been created on the Océ PRISMAproduction Server system:

1 Date and Time
2 Backup ID
3 Operation performed was "backup" creation
4 Mount point was default
5 All backups have been created successfully

## Locate Backups

Backups are identified by their Backup ID generated internally when the backup is created. If find out the Backup IDs in an unknown environment or because the backups have been created a long time ago, the 'SearchBackups' function has been implemented. The search operation starts with the mount point to which the backups are written (this path can be configured in the configuration file config.xml, see below).
As backups or directories containing backups can also be relocated manually, an optional "search directory" can be defined for the search - so to speak as a temporary mount point (rearranging directories is possible but not recommended)

Description of the 'SearchBackups' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| [-dir] | <string> | Base directory for the search. Regarding the storage manager this would correspond to changing the mount point. |

The following parameters are displayed for each backup found:

| Parameter | Description |
|---|---|
| **Version** | Version of Océ PRISMAproduction Server in which the backup was created. |
| **Name** | Name of backup (short description of the backup). |
| **Description** | Detailed description of the backup. |
| **User** | User who created the backup. |
| **Date** | Date and time at which the backup was created. |

Example console output for a SearchBackups call:

```
[root@isny prismabackup]# ./prismabackup.py SearchBackups <-- 1
1122391099308 -> Version:'3.00.07'   Name:'BackupTemplate 3.00'    Description:'Backups
                 created from template 3.00'User:'root'    Date:2005-07-26 17:18:19'
1119610944434 -> Version:'3.00.07'   Name:'testbackup'     Description:'First Test Backup' } 2
                User:'root'  Date:2005-07-30 13:02:24'
1122964952130 -> Version:'3.00.07'   Name:'Foo Backup'     Description:'Is a foo Backup'
                 User:'root'  Date:2005-08-02 08:42:32'
```

- The default mount point of the storage manager is searched.
- Three backups are known to the storage manager. Most important information are the backup IDs (as they are the unique identifiers to be used in the restore, import, … commands) but also backup names and descriptions. The latter are the "human readable" identifiers of the backups.

## Delete Backups

Backups can be deleted with the Delete command if they are not needed any more. They can be located by means of the 'SearchBackups' command - as described above.
As backups or directories containing backups can also be copied / rearranged manually, an optional "search directory" can be defined for the search - so to speak as a temporary mount point.

Description of the 'Delete' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| -backupID | <string> | Identifier of the backup to be deleted. |

*Note:*
For security reasons no temporary definition of a different mount point is supported with the Delete command.

## Plug-in Specific Functions

There are two commands which support plug-in specific actions:

- The command 'GetPlugins' which lists all plug-ins known to the framework.
- The command 'GetPluginContents' which lists the content of a specific plug-in.

**GetPlugins**:

No parameters, lists all plug-ins known by the Océ PRISMAproduction Server Backup framework. When the content of the plug-in data in backup is to be displayed by GetPluginContents, the plug-in name must be entered exactly as displayed by this command.

**GetPluginContent**:

The content of the plug-in specific data of the backup given is displayed.

Description of the 'GetPluginContents' options:

| Option | Parameter | Meaning/Description |
|---|---|---|
| -plugin | <string> | Name of the plug-in for which the content is to be displayed. The names of the plug-ins available are listed by the GetPlugins command. |
| -backupID | <string> | Identifier of the backup for which the plug-in content is to be displayed. |
| [-dir] | <string> | Base directory in which the backup is located. Corresponds to a temporary overwrite of the mount point. |

The following plug-in specific information is displayed for the backup given:

| Parameter | Description |
|---|---|
| **Type** | Type of Océ PRISMAproduction Server server the data has been backed up for: Master, Slave or PrintSlave. |
| **IP Address** | IP address of the Océ PRISMAproduction Server server. |
| **Root Path** | Physical root path from which the file sets listed below have been taken.<br>(Set = group of file/subdirectories in a directory which are logically related. As there could be more than one such group in a directory, an "exclude" mechanism is necessary to be able to define different views on the content of the directory.) |
| **Filesets…** | List of file sets which have been included in the backup respectively have been excluded from the backup. Each file set is described by following parameters:<br>**Physical Directory ..**<br>Physical path of the file set (inside the Root Path)<br>**Logical Directory ..**<br>Name of logical path if applicable<br>**Includes/Excludes ..**<br>List of files/directories (inside the Physical Directory) which have been included/excluded. |

Example console output for a 'GetPluginContents' call:

| | |
|---|---|
| 1 | The content which the plug-in for LCDS resource data has backed up in the backup with the given ID is to be displayed. |
| 2 | On the Master server the directories' /u/prismapro/data/cat' and '/u/prismapro/data/resimport/lcds' have been included. |
| 3 | The same directories have been included on the Slave server. |

## Utility Functions

The following utility function allows creating the properties file involved in the backup process by request:
'CreateSystemInfo', creates the property file "systeminfo.properties".
When this command is executed, a possibly already existing property file is renamed to <property file>.bak so that it's not overwritten by the new one.

*Note:*
The functionality of this command is implicitly called by the 'Prepare' command which sets up the environment for a system backup.

'CreateSystemInfo':

No parameters, for the content of the file see chapter 'Properties Files' below.

## Basic Configuration Files

The Océ PRISMAproduction Server Backup framework is highly configurable, both in its behavior and in the components involved. It is implemented in Java, all components which can be referenced by the configuration files must also be implemented in Java.

**config.xml**

In this configuration file the basic file paths and the storage managers are defined.
In detail these are:

- The name and path of the history file Default: '/u/prismapro/cfg/prismabackup/history.xml'
- The name and path of the plug-ins configuration file Default: '/usr/local/prismabackup/cfg/plugins.xml'
- Type and basic parameters of the storage manager(s)
  **Note**: In the current version of Océ PRISMAproduction Server Backup one type of storage manager is supported - the MasterMountTar storage manager. This storage manager tars data via the tar command and stores the data in a mounted network drive on the Master server.

**plugins.xml**

In this configuration file all plug-ins are listed and for each plug-in the reference to the technical implementation:

- Name of the class which implements the **plug-in client**
- Name of the class which implements the **plug-in server**

- Name of the class which implements the **plug-in content**
- Name of the class which implements the **plug-in permissions**

In the current version of Océ PRISMAproduction Server Backup all plug-ins refer to the same implementation, the generic template based plug-in implementation.

**backuptemplate-3xx.xml**

This configuration file is used exclusively by the generic template based plug-in implementation.
The backup template file contains entries for all plug-ins. Each plug-in entry contains file set lists for the different Océ PRISMAproduction Server server types.

*Note:*
There mustn't be an entry for each server. If there is no entry it simply means that no data will be collected on that type of server. This is often true for PrintSlaves as there aren't scarcely any user data available there: the PrintSlaves task is mainly to print and all data needed is fetched "on the fly" from the other servers of the cluster.

Example (section of backuptemplate-300.xml):

```
<?xml version="1.0" encoding="UTF-8"?>
<backuptemplate name="BackupTemplate 3.00">                                    1
      <description>Backups created from template 3.00</description>

      <plugin identifier="AFP_PrintResourcesPlugin">                           2
            <servertype type="Master" rootpath="/u/prismapro/resources">
                  <fileset dir="." logicaldir="">
                        <include name="*"/>
                        <exclude name="composer/*"/>
                  </fileset>
            </servertype>
            <servertype type="Slave" rootpath="/u/prismapro/resources">
                  <fileset dir="." logicaldir="">                              3
                        <include name="*"/>
                        <exclude name="composer/*"/>
                  </fileset>
            </servertype>
            <servertype type="PrintSlave" rootpath="/u/prismapro/resources">
                  <fileset dir="." logicaldir="">
                        <include name="*"/>
                        <exclude name="composer/*"/>
                  </fileset>
            </servertype>
      </plugin>
            .
            .
      <plugin identifier="POD_ComposerResourcesPlugin">
            <servertype type="Master" rootpath="/u/prismapro/resources">
                  <fileset dir="composer" logicaldir="">
                        <include name="*"/>
                        <exclude name=" "/>
                  </fileset>
                  <fileset dir="" logicaldir="/$IMPSETS">                      4
                        <include name="*"/>
                        <exclude name=" "/>
                  </fileset>
                        .
                        .
                        .
            </servertype>
      </plugin>
            .
            .
</backuptemplate>
```

| | |
|---|---|
| 1 | It's the template for version 3.00. |
| 2 | The plug-in collects the AFP resource data, it's called AFP_PrintResources-Plugin. |
| 3 | On each type of Océ PRISMAproduction Server server all files in path '/u/prismapro/resources' are collected except the subdirectories/files in sub-directory "composer". |
| 4 | In contrast the entry for the POD_ComposerResourcesPlugin includes only the "composer" subdirectory (plus all files in the logical directory /$IMPSETS). |

## Properties Files

In contrary to the files listed in 'Basic configuration files' (see chapter before) these files are not part of the distribution but are generated dynamically when preparing a System Backup.
The background for these files is that it has been decided to have Océ PRISMAproduction Server not running on the Master server when performing the backup. This ensures that there is no interference and that a backup can be created even of Océ PRISMAproduction Server is not operational.
In contrary to the backup process itself Océ PRISMAproduction Server must be running on the Master server when these to files are to be created. Some parts of the configuration database and of the job database are extracted into these properties files.
As a fallback the files can also be built manually with the help of a simple text editor.

**systeminfo.properties**

This property file contains the basic information about the current Océ PRISMAproduction Server system which is necessary to be able to run a backup.
These are;

- the current Océ PRISMAproduction Server version
- the servers in the current cluster
- the libraries on each server of the cluster

Example:

```
prisma_version=3.04.00                                                    1
server_1=Master,foomaster.ops.de,10.53.35.01                              2
server_2=Slave,fooslave.ops.de,10.53.35.02                                3
library_1=server_1,/$SHARED,/u/prismapro/data/shared/
library_2=server_1,/$XDATA_DEVICE,/u/prismapro/cfg/lcds/xdata_dev/
library_3=server_1,/$XRESOURCE@1,/u/prismapro/data/resimport/lcds/
library_4=server_1,/$TARGET,/u/prismapro/data/pjm/target/                 4
library_5=server_1,/$OUTPUT,/u/prismapro/data/pjm/output/
library_6=server_1,/$UP3I,/u/prismapro/cfg/pjm/up3i/
             .
             .
             .
library_21=server_2,/$RESOURCES@1,/u/prismapro/resources/
library_22=server_2,/$RESOURCES-LOCAL@1,/u/prismapro/resources/local/     5
library_23=server_2,/$RESOURCES-SYSTEM@1,/u/prismapro/resources/system/
library_24=server_2,/$IMPSETS,/u/prismapro/data/xpdc/impsets/
```

| | |
|---|---|
| 1 | Version of current Océ PRISMAproduction Server is 3.04.00 |
| 2 | The Master servers hostname is "foomaster.ops.de" and the IP address is 10.53.35.01 |
| 3 | The (one and only) Slave servers hostname is "fooslave.ops.de" and the IP address is 10.53.35.02 |

| | |
|---|---|
| 4 | Logical - physical library name mapping on Master |
| 5 | Logical - physical library name mapping on Slave |

## Format of the Backups (of Mount Storage Manager)

Backups are identified by a unique Backup ID which is generated when the backup is created. This ID is the one and only identifier for a backup, therefore it is not important in which location a backup is stored - it can always by found by means of the ID. Technically the ID is used as a directory name: all data which belongs to a backup is stored in this directory. It's just plain files and a mix of the actual backup data and XML files which describe the creation of the backup.

# Océ PRISMAproduction Server Backup: Glossary

| Term | Description |
|---|---|
| Backup data types | The possible types of data which are supported in Océ PRISMAproduction Server Backup are:<br>AFP Resources, LCS Resources, POD Composer Resources, POD Unity RIP Resources, Operating System Configuration, Océ PRISMAproduction Server Configuration, Jobs, Print File Libraries, User Home Directories. |
| Backup ID | The Backup ID is a unique internally generated number which identifies a backup throughout its lifetime. It's recommended to specify a descriptive name when creating a backup, so that it can be found more easily if the ID has not been registered somewhere. |
| Cluster | An Océ PRISMAproduction Server cluster is the sum of all servers in a customer configuration. There is always one Master server and up to 12 Slave servers in a cluster.<br>Same cluster regarding backup/restore means: Same number of servers, same host names, same IP addresses. |
| Configuration Backup | Océ PRISMAproduction Server has all its configuration data stored in a central database. When the configuration is changed all components are notified via a central event mechanism and the applications can adapt their behavior appropriately.<br>Because of the central importance of this database there has been a backup/restore system regarding configuration data from the very beginning of Océ PRISMAproduction Server V3.<br>Compared to the Configuration Backup the Océ PRISMAproduction Server Backup deals with all data of a server cluster (and includes also the configuration backup data). |
| File Set | A group of files related to each other. Their location in the file system is defined by the physical path definition (for flexibility reasons it is separated in a "root path" and a "directory" path). Their content is defined by a sequence of includes and excludes. The excludes are necessary as a directory may contain more than one file sets.<br>**Example**: the directory '/u/prismapro/resources' contains both APA and LCDS resource files. When defining the APA file set one has to exclude the LCDS files and the other way around. |

| Term | Description |
|---|---|
| Import | A backup can be restored or imported. Import means: crossing Operation System (LINUX Caldera to SuSE), Océ PRISMAproduction Server configuration and Océ PRISMAproduction Server version boundaries. Thus importing is more flexible than restoring. Only backups created by an Océ PRISMAproduction Server version equal or lower than the current one may be imported. |
| Plug-ins | The separation of the different data types in an Océ PRISMAproduction Server system and the possibility to let the developers / teams in charge program the actual backup/restore operations is the heart of the concept. This has been achieved by building a robust framework which allows to "plug in" whenever necessary: when creating a backup, when restoring/importing, in the Java server, in the client, …<br>The generic plug-in: solution in Version 1. Doesn't support a GUI and is based on templates that describe which data is to be backed up for which Backup data type. |
| Restore | A backup can be restored or imported. Restore means: the Océ PRISMAproduction Server cluster has not changed, Operation System, Océ PRISMAproduction Server configuration and Océ PRISMAproduction Server version are identical. Restore is intended to be used to rebuild a cluster after a serious crash. Therefore not much flexibility has been built in. |
| Storage Manager | All archive data in Océ PRISMAproduction Server Backup is routed through a storage manager module. It is crucial not to bind plug-ins, client and Java server functions to any external devices directly. The storage manager encapsulates this access and therefore the support of additional storage devices can be added without changes in the basics. |

# Mirror Print Jobs

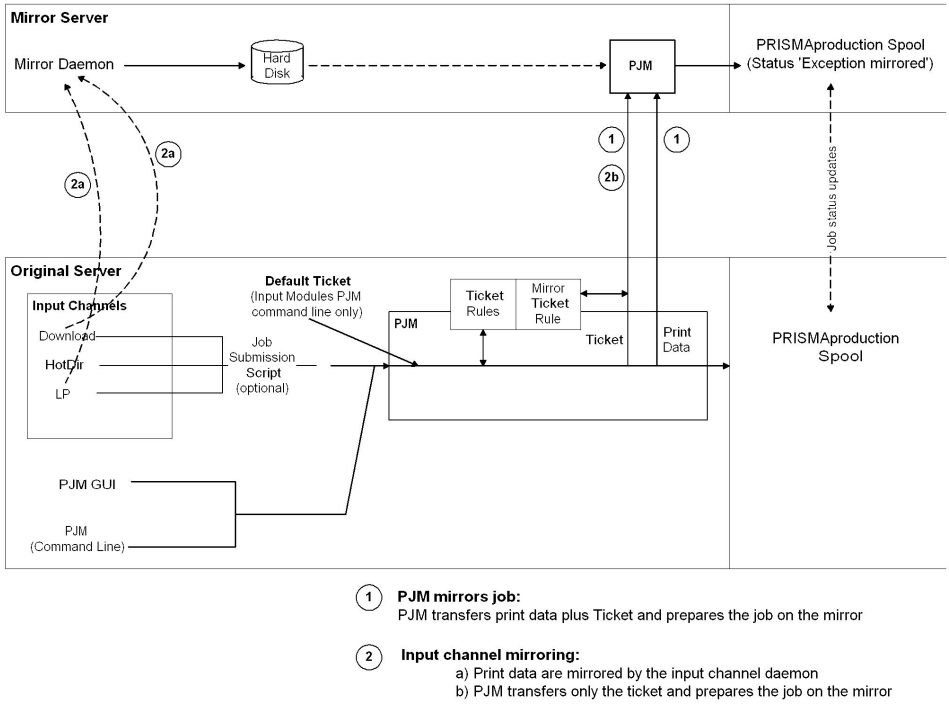
## Mirror Print Jobs: Introduction

### Introduction

Océ PRISMAproduction Server makes it possible to mirror print jobs. This means it can automatically transfer print jobs from the 'original server' to another Océ PRISMAproduction Server master called 'mirror server'. If the original server is not available anymore, it should be possible to execute the job on the mirror server. To ensure this, Océ PRISMAproduction Server checks if the mirrored job could be executed on the mirror server.
The mirror server is defined globally on the original Océ PRISMAproduction Server server. The actual mirroring can be defined for each job separately using the PJM user interface, the PJM command line or specially configured Input Modules.
The print job mirroring is designed in such a way that the configuration of the original server and the mirror server do not have to be the same. Differences between the two configurations (for example printer name, resolution, job queue) must be adjusted using special mirror ticket rules. External resources have to be made available also on the mirror server. Different path names can also be handled by mirror ticket rules.
The general ticket rules (which modify the ticket before mirroring) and in case of mirroring by input modules the job submission script as well as the default ticket have to be available only on the 'Original server'.
The Océ PRISMAproduction Server job identifiers for mirrored jobs are identical on the original server and on the mirror server. Therefore the used Job identifier range for each server must be configured in such a way that these servers use different identifiers for locally created jobs. This prevents mirrored jobs from getting a job id, which is already locally used.
The regular exchange of jobstatus information between the two servers secures that either the job on the original server can be printed or the job on the mirror server. It is only possible to print the job twice, if the communication between the original server and the mirror server is interrupted or defective.

*Note:*
The following terms are used: Original server is the server from which a job to be mirrored is submitted. Mirror server is the server which receives the mirrored jobs.

## Illustration




Normally the whole job is mirrored using the PJM (option 1 in the figure above). This causes additional I/O load on the Original server. To reduce this load, some of the Input Modules can mirror the data files on the fly to the mirror server (option 2 in the figure above). Each received network data packet is immediately sent to the mirror server. This means that during job submission the print data don't have to be read from Hard Disk and sent to the mirror server. Currently this feature is only available for the Download and LP Input Module.

For a description of the possibility to mirror jobs via Input Modules see *"Input Modules': Overview"* on page 460.

An Océ PRISMAproduction Server server can be an 'Original' server as well as a 'Mirror' server at the same time. This means that 2 Océ PRISMAproduction Server servers can serve as backup solution for each other.

# Mirror Print Jobs: Prerequisites and Functionality

## Prerequisites

- Interconnectivity License (must be installed on the original Océ PRISMAproduction Server Master and on the second Océ PRISMAproduction Server Master server, which is used as mirror server)
- Under 'Configuration' -> 'User Permissions' special rights can be set to protect the mirroring of jobs and the actions to control the mirrored jobs. These rights are only visible if the above mentioned license is installed:
  Under Print Job Manager Settings
  - Allow to mirror jobs
  Under Job Viewer Job Modification Settings:
  - Allow to release mirrored jobs
  - Allow to delete mirrored jobs
  - Allow to pass control of mirrored jobs to mirror

## Functionality

If the mirror function is enabled, the jobs are mirrored when they are created, i.e. on job submission they are also transferred to the indicated mirror server. When a mirror job is successfully submitted it has been generated on the original server and at the same time on the mirror server. On the mirror server the mirrored job gets the state 'exception mirrored'. The user can pursue the jobs in the appropriate job lists. The job states are exchanged between the two servers. The state of the 'remote' job is reported in the tooltip of the 'local' job.

### Mirrored Jobs

The mirrored job remains on the mirror server at least until the job is finished on the original system. You can modify the hold time in the system configuration of the mirror server.
The mirrored job has the status 'Exception mirrored' on the mirror system. To avoid double printing, the job can only be activated if:

- the original server is not available and
- the user has the permission to release the job and
- the job on the original server is not finished-complete.

### Transfer Job Control

Generally speaking only one server has the control over the job. The job control can be transferred to the other server and back again. On the server without job control, the job

has the status 'Exception mirrored'. When transferring the job control, the status of the job changes respectively. The possibility to manually transfer the control over the job to the mirror server depends on the job status and on a permission granted to the user in the user administration.

**Mirror Policy**

Controls the behavior of the system if mirroring jobs is enabled:

| Parameter | Description |
|---|---|
| Mandatory | If this option is selected, the system only creates the job if mirroring was successful. In other words, the job is submitted on both systems or it is not submitted at all. |
| Optional | In this case the system tries to mirror the job, but if this is not successful, the job will be submitted on the original server anyway. |

You can set these parameters in 'Configuration' -> 'System' and/or in the PJM -> 'Transfer Mode'. The PJM policy always overrides the setting in the 'System' window. If you set the policy in the PJM to 'Default', the setting in 'Configuration' -> 'System' becomes valid.

**Mirror Ticket Rules**

Select a Ticket Rule, which has been configured to modify the ticket of the mirrored job so that this job can be submitted on the mirror server. You can set this parameters in 'Configuration' -> 'System' and/or in the PJM -> 'Transfer Mode'. The Ticket Rule, which is set in the system configuration, is only applied if the Ticket Rule setting in the PJM is set to 'Default'.

# Mirror Print Jobs: Workflow

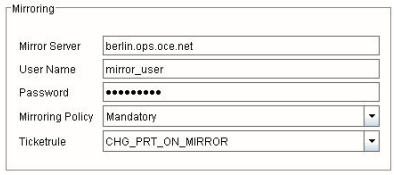
## Introduction

There are some user interfaces in the Océ PRISMAproduction Server 'Explorer', which allow to make your settings for mirroring the print jobs on a different Océ PRISMAproduction Server master server. All settings have to be done on the original server except for the permissions to delete/release mirrored jobs (see below).

## Basic Mirror Settings in Océ PRISMAproduction Server

**Configuration -> System**

In the section 'Mirroring' you can define the global settings for this function (some of these settings can be overwritten in the PJM):



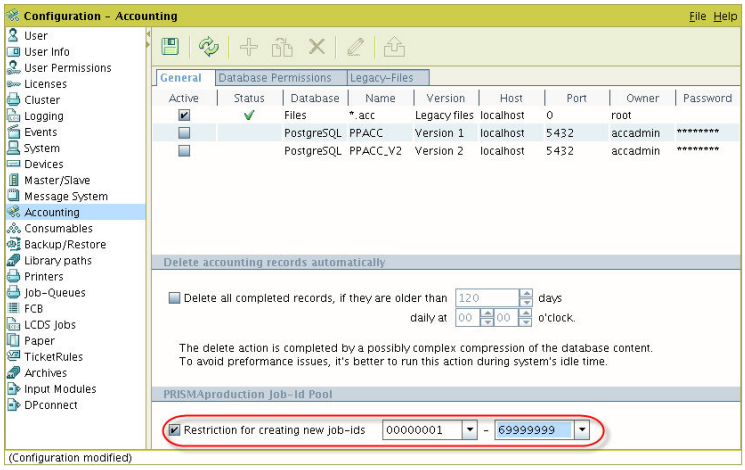

| UI Element | Description |
|---|---|
| Mirror Server | Sever name of the Océ PRISMAproduction Server master, which receives the mirrored print jobs. |
| User Name | User name under which the mirrored job is generated on the mirror server (future owner in the joblist). This user must exist on the mirror server. |
| Password | Password for the user above. |
| Mirror Policy | See 'Mirror Policy' in *'Mirror Print Jobs: Prerequisites and Functionality'* on page 627. |
| Ticketrule | See 'Mirror Ticket Rules' in *'Mirror Print Jobs: Prerequisites and Functionality'* on page 627. |

**Mirror-Service**

After the entries in 'Configuration' -> 'System' have been completed, a mirror service is created on the original server. This mirror service relates to the configured mirror server. Therefore this server is displayed in the list of services ('Services' application in the Océ PRISMAproduction Server 'Explorer'). Per default this service is deactivated and must be enabled via the 'Services' menu or toolbar. If the mirror server is accessible, the service gets the status 'online' (see below):

### Configuration -> Accounting

When mirroring jobs it is necessary to restrict the range of job IDs on the original system as well as on the mirror system to avoid the creation of the same job IDs on both systems. For example you can set the job range on the original Océ PRISMAproduction Server master to 00000001 to 69999999 and on the mirror server from 70000000 to 99999999.




### Configuration -> Ticket Rules

Generally you use Ticket Rules to modify an existing job ticket. If a Ticket Rule is selected as mirror parameter in the PJM or in the system configuration, this rule should modify the ticket of the mirrored job so that this job is printable on the mirror server. For example you can select another printer for the printout of the mirrored job.

### Configuration -> User Permissions

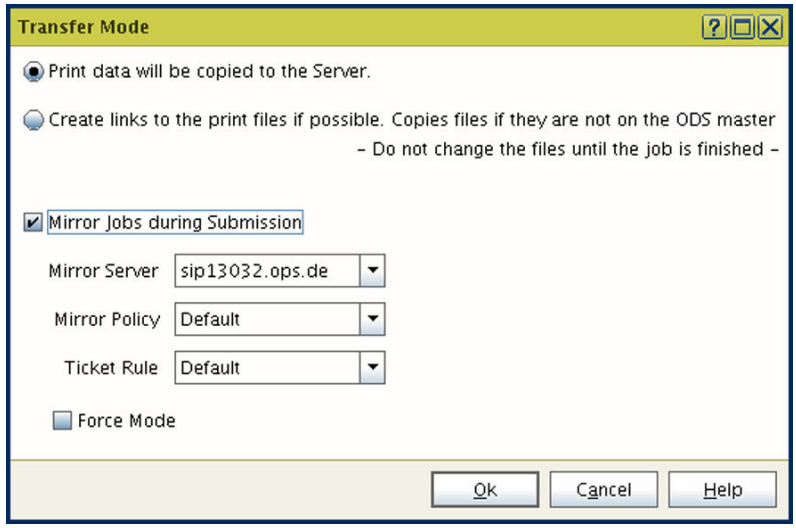
- On the original server:
  **Allow to mirror jobs (PJM)**
  Default: service and admin=yes, applic and operator=no
  **Allow to pass control of mirrored jobs to mirror**
  Default: service and admin=yes, applic and operator=no

(see 'Transfer Job Control' in *'Mirror Print Jobs: Prerequisites and Functionality'* on page 627)

- On the mirror server:
  **Allow to delete mirrored jobs**
  If the user has this permission, the mirrored jobs can be deleted manually. Otherwise the deletion is performed automatically (time delay can be set in the System Configuration of the mirror server -> 'Hold Finished Jobs [h]').
  Default: service and admin=yes, applic and operator=no

### PJM -> Menu 'Job' -> 'Transfer Mode'

To invoke the mirroring of jobs in the PJM window you have to open the 'Transfer Mode' dialog in the PJM. Here you can select the configured mirror server, the mirror policy and the ticket rule which is only performed on the ticket to be mirrored.




The Ticket Rule selection offers three possibilities:

- select one rule from the list of defined Ticket Rules,
- select 'Default' if the rule defined under 'Configuration' -> 'System' should be valid,
- select 'none' if no Ticket Rule should be applied to the mirror ticket.
- The settings you make in this windows remain valid for all jobs until they are changed again. These settings are not part of the job ticket.

## Mirror Jobs via the PJM Command Line

You can also mirror jobs via the PJM command line, which offers the same functionality as the graphical interface. You find the respective parameters in chapter "Command Line Interface" -> "PJM" in the Océ PRISMAproduction Server Technical Reference Manual.

## Mirror Jobs via Download

To be able to Mirror Jobs using the Download Input Module, the global mirror configuration must be performed in Océ PRISMAproduction Server 'Configuration' -> 'System'. After this is done, the mirror server can be selected in the Download port configuration.
The print data files are mirrored using the Download daemon if 'MirrorDataFile=Yes' (see the figure *'Mirror Print Jobs: Introduction'* on page 625, option 2). This setting can be used only when in the job submission script no print data files are modified, since this script is only executed on the Original server.
If 'MirrorDataFile=No' (see the figure in *'Mirror Print Jobs: Introduction'* on page 625, option 1), the print data files are transferred by PJM.
See also *"Download"* on page 474 for more details.

## Mirror Jobs using HotDir

To be able to Mirror Jobs using the HotDir Input Module the global mirror configuration must be performed in Océ PRISMAproduction Server 'Configuration'. After this is done the mirror server can be selected in the HotDir configuration.
The Print Data files cannot be mirrored with the HotDir daemon (MirrorDataFile=No), the files are transferred by PJM.
See also *"HotDir"* on page 488 for more details.

## Mirror Jobs using LP

To be able to Mirror Jobs using the LP Input Module the global mirror configuration must be performed in the Océ PRISMAproduction Server 'Configuration'. After this, job submission scripts must be used to activate the print file mirroring and the use of the ticket rules.
The print data files are mirrored using the LP daemon if 'MirrorDataFile=Yes' (see the illustration in *'Mirror Print Jobs: Introduction'* on page 625 -> option 2a). This setting can only be used if no print data files are modified in the job submission script, since this script is only executed on the Original server.
If 'MirrorDataFile=No', the print data files are transferred by PJM (see the illustration in *'Mirror Print Jobs: Introduction'* on page 625 -> option 1.
See also *"LP"* on page 508.
See 'The Job Submission Script' in *'Input Modules': Overview'* on page 460 for more details.

# Chapter 12
# Océ Document Designer Integration in Océ PRISMAproduction Server

# Océ Document Designer for Océ PRISMAproduction Server

## Introduction

This chapter describes how the Document Designer LINUX command line version is integrated in Océ PRISMAproduction Server V4.00.xx. The term ODDA (Océ Document Designer Advanced) is used alternatively to address the Document Designer throughout this chapter.
The integration is based on a hot directory scenario. A dynamic job ticket extension is used to call the Document Designer in the Océ PRISMAproduction Server workflow. No user interface is needed; the dynamic section can be added to an APA Job Ticket using a plain text editor.
The resources referenced in the ODDA workflow step can be either addressed locally or by the Océ PRISMAproduction Server library system.
The Document Designer executable is called directly in the workflow, i.e. it is assumed that the primary use case will be long running production jobs with many pages.

## Requirements

The following components are needed to use ODDA within Océ PRISMAproduction Server:

- ODDA-Connector RPM (license-dependent, delivered on the Océ PRISMAproduction Server CD). Contains the ODDA-Océ PRISMAproduction Server connector and demo files (installed in '/u/prismapro/demo/odda')
- Designer Formatter LINUX RPM (license-dependent, CD must be ordered and installed separately for all versions from Océ PRISMAproduction Server V3.10.05). For detailed information see the release notes/installation description distributed with the RPM.

## Usage of the Document Designer

The following steps are necessary to be able to use the ODDA support in Océ PRISMAproduction Server:

- Install the two RPMs mentioned above and provide the necessary licenses. When successfully activated, an Océ PRISMAproduction Server workflow service "oddaservice" and a library named "ODDA" is available in Océ PRISMAproduction Server. The library is designed as common access point for the ODDA resources "Workflow" and "Job Configuration" called in the ODDA service. The library concept guarantees that the resources are accessible from all servers within an Océ PRISMAproduction Server cluster.

**Note**: there are 2 licenses involved: the Océ PRISMAproduction Server Connector license and ODDA Command Line license. The Océ PRISMAproduction Server Connector license enables/disables the ODDA support, the ODDA license allows execution of the ODDA Command Line program in the Océ PRISMAproduction Server workflow.

- Enable access to the resources used by the Document Designer during runtime (either by mounting the appropriate directories or by copying the resources in the Océ PRISMAproduction Server library system).
- Create an APA-Ticket and add the dynamic ODDA section (see next chapter). Submit the ticket via the standard PJM.

In an automated environment, the print input will most likely be dropped in hot folders dedicated to specific ODDA workflows.

## Job Ticket

To create an ODDA workflow, a dynamic job step calling the Document Designer command line must be added to an APA-Ticket:

```
:
:
[files]
:
:
Post_Import_Steps=oddaservice                          1)
[oddaservice]                                          2)
_Service=oddaservice                                   3)
WFD_File=[/$ODDA/]<workflow file>                      4)
JOB_File=[/$ODDA/]<job file>                           5)
Engine_Configuration=<engine configuration name>       6)
```

| Step | Action |
|---|---|
| 1 | Link the file section with the dynamic job step "oddaservice" |
| 2 | Define the section in the Job Ticket which describes the name of the service and the parameters which are forwarded by the workflow engine when the service is called during runtime. |
| 3 | The name of the service must always be "oddaservice" as it is installed under this name by the ODDA-RPM. The name of the dynamic section - lines 1) and 2) in the ticket- could be different but are named identically here for simplicity reasons. |
| 4 | The Document Designer Workflow Definition File. If <workflow file> is prefixed by /$ODDA/, the addressed WFD file is temporarily extracted from the "ODDA" library and the local copy is passed to the Document Designer command line. |

| Step | Action |
|---|---|
| 5 | The Document Designer Job Definition File (optional). If <job file> is prefixed by /$ODDA/ the addressed JOB file is temporarily extracted from the "ODDA" library and the local copy is passed to the Document Designer command line. Note: as the integration of ODDA in Océ PRISMAproduction Server is based on the AFP engine, only the latter is referenced by "oddaservice". Only the AFP engine configurations can be referenced by (6). |
| 6 | The Engine Configuration Name referred to in the Job Definition File (optional, only valid if also a Job Definition File has been defined). The Engine Configuration Name parameter must only be used if the Job Definition File contains a respective AFP engine configuration and has been saved with option "Include all engine configs" by the ODDA Production GUI. |

*Note:*
If there is more than one file defined in the [files] section and the Document Designer should process them all, they can all refer to the same [oddaservice] dynamic extension. If different WFDfiles and JOBfiles/Engines are to be used for different input files, extensions of their own must be defined. Also, tickets with a mix of conventionally processed files and files to be processed by the Document Designer are valid.

*Note:*
If more than 1 file section in the Job Ticket references the Document Designer service, it is called separately for each file in the list. The output files generated are "grouped", this means they are printed as individual files and in the sequence given in the Job Ticket.

## ODDA Resources

Two resources control the behavior of the Document Designer command line apart from the input data:

- The Workflow Definition File
- The Job Definition File

For details about the content and meaning of these files, consult the Document Designer documentation.
These resources can be referenced either as local files or as Océ PRISMAproduction Server library files. It is strongly recommended to use the implicitly created library "ODDA" as only the Océ PRISMAproduction Server library concept guarantees the availability of the content on all servers in a cluster. Alternatively, when using the local

file approach the resource directories must be mounted on all servers of a cluster individually.

## ODDA Service

The ODDA service "oddaservice" is called at the appropriate point in time in the workflow when the dynamic extension described above is encountered in a Job Ticket.
It maps the parameters passed by the workflow engine to Document Designer command line parameters including the input data. The output data created by the Document Designer is passed to the next workflow step, normally the print step.
The "user interface" of the service is that of any Océ PRISMAproduction Server service:

- An indication that the service is running in the Jobs Viewer
- An entry in the 'Services' application
- One or more messages in the Message Window, mainly in case of an error
- A termination information in the Jobs Viewer and the Message Window

The error information handling is based on the return code of the Document Designer command line call. The current version of Document Designer supports only a few return codes, therefore it is not possible to give the user detailed information just by interpreting the return code. For that reason, the ODDA logging file is scanned for "Fatal Error" entries and Océ PRISMAproduction Server error messages are created for these entries. These should give the user/operator enough information to be able to deal with the error situation.

Assumptions:

- The ODDA service links the input file by the name PrismaInput. That is, the data input module in the ODDA workflow must be named PrismaInput.
- The output created by the ODDA workflow is expected to be AFP as the ODDA service is embedded in an Océ PRISMAproduction Server AFP workflow.

## Using Hot Directories

See also "HotDir" in *"HotDir"* on page 488.
In Océ PRISMAproduction Server, a hot directory is an important possibility to link fully automated predefined job tickets with data coming in. This is also the preferred approach for the current Document Designer use case.
Hot directories can be seen as input channels, which process "similar" data. So a separate hot directory could be defined for each type of input data / Document Designer workflow combination. On the other hand, also some logic can be applied to an Océ

PRISMAproduction Server hot directories (Ticket Rules, scripts). This would also allow processing the different combinations with one single hot directory.
To avoid the creation of too many hot directories or to make the logic applied to a single hot directory not too complicated, the following approach is recommended:

- Define different hot directories for different Document Designer workflows
- Differentiate among different applications using the same Document Designer workflows by Ticket Rules or small scripts

## Demos

The examples mainly show how an ODDA job ticket must look like and allow the administrator to check after the installation whether the ODDA support works in principle.

# Index

**Accounting Administration**
Database Permissions ....320
General Settings ....317
Legacy-Files ....321
Overview ....316
**Authorization**
Auto ....258
External ....258
Ldap ....258
**Authorization Modes**
Authorization Modes ....264

## B

**Backup/Restore**
Basic Concept ....327
Convert old Backups ....335
Window Functions ....330

## C

**Cluster Configuration**
Cluster Configuration ....276
**Cluster Type**
Jobsplitting ....276
Printer ....276
**Cofiguration**
Backup/Restore ....327
**Configuration**
Accounting Administration ....316
Backup/Restore ....330, 335
Cluster ....276
Consumables ....322
Devices ....298, 300
Events ....280
FCB ....378
General Usage of the Applications ....256
Job Queues ....375
LCDS Jobs ....385
Library Paths ....337
Licenses ....313
Logging ....278
Master/Slave ....301
Message System ....304
Overview of Applications ....250
Paper ....413
Printers ....339
System ....281
User Management ....258
**Consumables**
Consumables ....322
**Country Settings**
Country Settings ....264

## D

**Devices Configuration**
Devices Configuration ....298, 300
**DPconnect**
Barcode Tab ....174
Configuration and Job Submission ....153
Configuration Example ....189
Data Processing ....164
Functionality ....147
Hints for using Ticket Templates ....177
Input Job Ticket Translation ....172
Job Processing ....160
Maintenance Programs ....193
Meaning of Job Ticket Template Entries ....178
Translation Rules for Input Job Ticket Statements ....196
User Interface ....159

## E

**Events Configuration**
Events Configuration ....280
**Explorer Launcher**
Explorer Launcher ....56

## F

**Forms**
Forms ....414

## G

**GetTiff-Service**
GetTiff-Service ....100
**Graphic Arts_Plus**
Graphic Arts_Plus ....96

## I

**Installation**
Installation/Deinstallation/Update of PRISMAproduction ....45
Update of SUSE Linux Enterprise Server 10 ....23
**Installation of SUSE Linux**
Create server configuration media ....15
Overview ....12
Prerequisites ....13
**Installation of SUSE Linux Enterprise Server 10 SP2**
Installation of SUSE Linux Enterprise Server 10 SP2 ....18
**IP Address (change)**
IP Address (change) ....51

## J

**JCF (Job Control Files)**
JCF (Job Control Files) ....382
**JCF Parameters**
JCF Parameters ....387
**Jobrequirement**
Jobrequirement ....101

## L

**Launcher**
Launcher ....56
**LCDS Parameter Configuration**
Description of the JCF Parameters ....387
Job Control Files (JCF) ....382
LCDS Jobs Window ....385
Online Configuration ....403
Special Functions and User Scripts ....405
**LCDS-Module**
New Catalog ....214
Organization of Resources ....215
Stockset Configuration Tool ....223
**LDAP Parameter**
LDAP Parameter ....290
**Library Paths**
Library Paths ....337
**Licenses**
Licenses ....313
**Logging Configuration**
Logging Configuration ....278
**Login Dialog**
Login Dialog ....260

## M

**Master/Slave Configuration**
Master/Slave Configuration ....301
**Message System**
Automatic Answers ....309
Automatic Saving ....307
General Settings ....305
Message Suppression ....312
Overview ....304
Triggers ....311
**Mirror Print Jobs**
Introduction ....625
Prerequisites and Functionality ....627
Workflow ....629

## N

**Network Configuration**
Network Configuration ....32
**Network Settings**
Network Settings ....33

## O

**Océ Document Designer**
Integration into PRISMAproduction ....634

## P

**Paper Configuration Tool**
Paper Configuration Tool ....413
**Passwords**
Aging Parameters ....296
Complexity ....297
**PCL Converter**
Concept ....108
Conversion under Océ PRISMAproduction Server ....124
Fonts and Bins ....111
Operation ....119
Resource Handling ....113
Troubleshooting ....126
**PCL Module**
Print Parameter ....245
**PCL-Module**
General Features ....232
Native Workflow ....234

**Permissions**
Permissions ....271
**Permissions (editable)**
Permissions (editable) ....272
**PPML Converter**
PPML Converter ....143
Workflow ....145
**Print File Manager**
Media Configuration ....298
**Print File Manager (PFM)**
Print File Manager (PFM) ....68
**Printer Configuration**
Add a new Printer ....342
Cluster ....365
Custom specific Infopages and Resources for Configured Printers ....362
General Tab ....349
Gray Curves ....370
Input Devices ....367
Job Notification ....346
Job Queues ....364
Output Devices ....368
Overview ....339
Postprocessing Devices ....368
Print Parameter ....352
Printer Drivers/Backends ....355
Printer Notification ....369
Toner Stations ....366
**PRISMAproduction Backup**
Command Line Client ....603
Glossary ....623
Tasks and Components ....596
**Properties for PCL file**
PCL Native Workflow ....237

## S

**Services Table**
Services Table ....39
**System Configuration**
Country Preferences ....293
eMail Notification ....286
Job Parameter ....285
LDAP Parameter ....290
Mirroring ....288
ODS Parameter ....282
Overview ....281
Password ....295
System Parameter ....284

## T

**Tabs**
Tabs ....414
**TicketRules**
Activate for LP, Download and HotDir ....440
Conditions ....425
Definition of rules ....423
Foreach action ....435
Introduction ....416
Main Window ....418
Messages ....427
Parameters ....429
Return/Exit ....428
Save and log ....439
Settings ....426
Value tables ....437
Variables ....430
**TIFF Converter**
Concept ....130
Operation ....132

## U

**Unity**
Unity ....75
AIMS: Extended AIMS ....91
Color Separation ....84
Conversion ....94
GetTiff-Service ....100
Input Tray Switching ....82
Resources and Fonts ....77
Troubleshooting ....95
Unity Plus (Graphic Arts_Plus) ....96
**UnityRIP**
UnityRIP ....75
**User Defined Paper**
User Defined Paper ....414
**User IDs**
User IDs ....62
**User Laguage**
User Laguage ....264
**User Management**
Create and Administrate Users ....264
LDAP Support ....262
Overview ....258
User Info Window ....269, 270
User Permissions ....271
**User Roles**

User Roles .....63

## W

**Workflow**

Color Selection .....578
Tab printing .....568
UP3I devices .....571